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ABSTRACT

This report describes the first phase of a 3-year longitudinal case study to investigate how 6 selected schools in New Zealand meet their year 11 students' needs through the subject choices offered them. The study is set against the background of the introduction of the National Certificates of Educational Achievement (NCEA), a new secondary-school qualifications regime. The report begins with a brief outline of the historical context of a set of wide-ranging reforms in New Zealand education within which the NCEA development is taking place. Following an outline of the research methodology, initial case-study data from each of the six participating schools is reported. The next section presents an analysis of the opinions of the heads of departments interviewed, organized by subject area: English, mathematics, science, technology, and the arts. An analysis of the overall patterns of student views is reported in the next section. The report concludes with a synthesis of the findings and a report on emerging issues and trends. At this stage of the study, questions remain about why the efforts of schools are not being regarded by the students enrolled there. Few clear patterns emerge. (Contains 3 appendices, 10 references, 11 tables, and 23 figures.) (WFA)

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Learning curves:

Meeting student needs in an evolving qualifications regime

From Cabbages to Kings: A first report

Rosemary Hipkins and Karen Vaughan

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LEARNING CURVES: MEETING STUDENT NEEDS IN AN EVOLVING QUALIFICATIONS REGIME

From Cabbages to Kings: A First Report

Rosemary Hipkins and Karen Vaughan

New Zealand Council for Educational Research
Te Rūnanga o Aotearoa mō te Rangahau i te Mātauranga
Wellington
2002

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EXECUTIVE SUMMARY

This report describes findings from the first stage of NZCER's "Learning Curves" longitudinal research project. The research is set against the background of the introduction of the new senior secondary school qualifications regime, the National Certificate of Educational Achievement (NCEA). For three consecutive years, NZCER is exploring the manner in which student subject choice at Year 11 changes in response to the implementation of the NCEA reforms, in six case study schools. These schools are similar in size, but have been selected to represent a diversity of student groups and contextual settings.

This report, *From Cabbages to Kings*, describes how the six selected schools have endeavoured to meet their Year 11 students' needs through the subject choices offered to them in the 2002 year. While there are many similarities between the schools, differences of approach to student subject choice have also emerged within the rich context of each school's particular circumstances, vision, and constraints. The title of the report captures an intention to break down distinctions between academic and "cabbage" subjects. In all six schools the NCEA reforms were seen to provide a qualifications structure within which this type of change could happen, encouraging students from the lower end of the ability spectrum to value their learning and to raise their achievement levels. The NCEA changes to the assessment of student learning were also seen to have the potential to raise achievement levels for the most able students, challenging them to meet "excellence" levels that demand more of them in some aspects than traditional examination-based assessments. Some aspects of subjects within the technology curriculum area are seen to have been "intellectualised" by the new assessment processes. While this can make these subjects intellectually challenging for able students, there is a concern that the "craft" aspects should also continue to be valued, allowing students who excel in working directly with materials to gain qualifications credits for their abilities.

There are two main ways in which NCEA changes in assessment for senior qualifications are having an impact on student choices in relation to their learning needs. Within the compulsory subjects, choice is being opened up through the provision of a wider range of *alternatives* (for example, three different versions of Year 11 mathematics). Where students can choose amongst different subjects, choice is being opened up through the provision of a wider range of subject *courses* (for example, geography as a separate course, or as part of a course called humanities).

All six schools have used the NCEA changes to increase the number of alternatives within the compulsory subjects (mathematics, English and, in five of the schools, science) and to encourage students into the alternatives perceived to best meet their learning needs. Effectively, this represents a type of streaming, a development which is of concern to at least one of the principals. Unlike past streaming practices, where *students* were streamed to particular clusters of subjects perceived to be appropriate for their general ability, NCEA changes are streaming individual *subjects*. In principle this difference can allow

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students to study at different levels of challenge in different subject areas. Whether this happens in practice will be tracked in future stages of the research.

Some schools are also widening the range of subject courses in response to the NCEA changes. Total numbers of available courses at Year 11 range from 22 to 32. Technology is the curriculum area that offers the widest range of courses. One school offers eleven different Year 11 courses under the technology umbrella, although some of these are computing courses. In some schools new courses in the arts curriculum area are now available or being considered, and these are very popular with some students. Innovative courses in the social sciences are now offered in three of the six schools. Two schools offer vocational options at Year 11, although these types of choices more usually open up at Year 12. All the principals expressed appreciation of the widening possibilities for students to attain qualifications credits for learning in "alternative" types of subject options, although several noted that the availability of resources, in particular staffing levels, is constraining the amount and pace of change in this direction.

In the school with the smallest number of subject options, the widening of student choice has been envisaged quite differently. In this school, choice is located within the range of National Certificates, with the NCEA being seen as just one possible qualification pathway. Within a framework of seemingly conventional "subjects" quite different combinations of content are being taught and assessed. For students who are "academic", the NCEA course differs very little from those offered in other schools. The alternative options within a subject may, however, include very different content, assessed by unit standards drawn from a range of National Certificates, as well as some NCEA achievement standards where appropriate.

The complexity of possible choice pathways within the NCEA is a tension that is contributing to workload pressures for teachers. New courses require a large investment of planning time. Assessment tasks for internally assessed achievement standards, provided by the MOE in support of the NCEA reforms, typically require considerable modification to make them suitable to the learning needs of different student groups. Trials of tasks are seen as essential, although those teachers who have had previous experience of unit standards assessment are more confident in their use of the new tasks and procedures than are the teachers for whom standards-based assessment is a new professional experience. Moderation issues, compounded by the academic/vocational tensions that continue to underpin curriculum debate, are also a significant source of workload pressures for most of the interviewed Heads of Department. Inconsistencies between achievement standards in different subjects were also noted as a concern. For example science and technology have differing guidelines for the awarding of multiple credits for similar practical investigation achievement standards. All six schools are debating how best to structure Year 12 courses to take account of the more detailed records of Year 11 learning that will become available for each student at the end of the 2002 year.

In view of the complexity of possible responses to the NCEA reforms, it seems unsurprising that some parents do not yet appear to understand the full import of the changes. Several schools reported that some parents still retain a traditional reluctance to allow students to take what they see as "less than academic" courses, perceiving that to do so would be to limit future career options. Students select subjects based on their expectations of personal enjoyment, but they also draw on their understandings of their future career/study options.

Achieving a balance in the selection of Year 11 courses that will engage the students, yet keep their educational options as open as possible, is a dilemma that is being debated in all six schools. All six schools make considerable efforts to ensure that students make choices appropriate to their individual needs, although many students seem not to be aware of these efforts. Ultimately, no matter how many courses are offered in total, combinations of choices are constrained by each school's option line structure. Yet the more choice students are offered, the more they seem to expect to have. In the school that offers the most languages, students wanted even more. In the school that offers the most "alternative" courses, students wanted even more of these.

Already at this early stage of the research project, it is clear that the NCEA reform is triggering fundamental changes in relation to meeting student learning needs. Teachers can see the possibilities for enhancing the learning and achievement of a wide range of students. If workload and implementation issues are set to one side, we found positive support for the NCEA related changes to options and courses.

SECTION ONE: INTRODUCTION TO THE REPORT

This report describes the first phase of a 3-year longitudinal case study to investigate how six selected schools meet their Year 11 students' needs through the subject choices offered to them. The study is set against the background of the introduction of the new senior secondary school qualifications regime, the National Certificates of Educational Achievement (NCEA). During 2002, and for the next two years, we are exploring the manner in which student subject choice at Year 11 changes in response to the implementation of the NCEA reforms, in the rich context of each school's particular circumstances, vision, and constraints. Thus the NCEA is not the direct focus of the study, but provides a focus for the exploration of the dynamics of a potentially far-reaching set of changes, as these are actually played out in these schools.

The report begins with a brief outline of the historical context of a set of wide-ranging reforms in New Zealand education within which the NCEA development is taking place. The initial reforms that culminated in this change are outlined in the second section, as are the broad aims of the NCEA initiative itself. Some early critical commentary by educational researchers is also identified as part of the existing background at the time the research began.

Following an outline of the research methodology (Section Three), initial case study data from each of the six participating schools is reported (Section Four). Contextual information about each school is reported in sufficient detail to allow general comparison with other similar schools. These descriptions are broad rather than detailed, so that the identity of the participating schools is protected. The case studies document the 2002 Year 11 subject choice options available in each school. They explore the views of the school principal and five selected heads of department (HODs) concerning these choices, and the selection processes employed as each student's individual progamme of study is worked out in practice. The views of each school's Year 11 student cohort regarding their subject choices are also reported in this section.

Section Five presents an analysis of the opinions of the interviewed HODs, organised by subject area. HODs of English, Mathematics, Science, Technology and the Arts were interviewed. Reasons for selecting these HODs in particular are outlined in the methodology discussion (Section Three). Reporting by subject allowed confidentiality for individual HODs to be maintained with respect to their subject specific comments. It also allowed an exploration of subject specific issues that emerged as the first stage of the research unfolded.

An analysis of the overall patterns of student views is reported in Section Six. Based on a questionnaire completed by more than 50 percent of the Year 11 students in each of the six schools, the collective trends reported in this section provide insights into the dynamics of student choice making in a time of change and uncertainty.

The report concludes with a synthesis of the findings outlined in Sections Four, Five and Six. Section Seven reports on emerging issues and trends. These are explored in relation to the existing critical commentary identified in Section Two. New questions to be addressed in the next phase of the project are also identified.

A Note on the Title of the Report

> The time has come," the Walrus said, "to talk of many things:
> Of shoes—and ships—and sealing-wax, of cabbages—and kings . . .
> Lewis Carroll, conversation between the Walrus and the Carpenter
> in *Alice in Wonderland*

During the initial data-gathering phase, the concept of "cabbage" subjects was raised in all six schools on at least one occasion. Within the vernacular of secondary school life, "cabbage" is a pejorative term. The "cabbage" subject is undemanding intellectually, and generally regarded as appropriate for those "cabbage" students who are considered to be incapable of academic success. The very existence of the term can make this judgment self-fulfilling for some students. Thus placement in a "cabbage" class is considered a derogatory personal assessment of intellectual worth. In the past some students, and often their parents, have resisted such labelling by insisting on the choice of a more academic option, which in the school's judgment might not best meet that student's specific set of learning needs.

The NCEA development explicitly aims to raise achievement for all students (see Section Two). In this context, the fate of "cabbage" perceptions has direct relevance to the manner in which actual subject choices meet some students' learning needs. Within the overall intention of the NQF/NCEA reforms, it could be claimed that students will be more akin to "kings" if they leave school with credentials that describe what they *can* do, rather than implying what they can't. Such "cans" include credits for: a wider range of skills; alternative as well as conventional school subjects; and parts of subjects rather than "all or nothing" whole subjects. Success in earning credible credentials will, it is implied, give students who have traditionally held lower expectations of their personal achievement a sense of self-worth and confidence in their ability to make a positive contribution to New Zealand's "knowledge economy". It is that broad ideal that we have attempted to capture by our choice of title.

SECTION TWO: BACKGROUND TO THE RESEARCH

This section of the report explores the context within which the NCEA reforms are being developed, and within which schools and teachers work to meet student needs and facilitate advantageous subject choices for students. It concludes with a summary of the overall thrust of the NQF reforms that began in the early 1990s.

The Development of a National Qualifications Framework (NQF)

The NCEA is part of the ongoing development of a National Qualifications Framework (NQF) that has been explicitly designed to credential a more diverse range of learning outcomes than is possible with traditional written examinations. This intention is made clear in the summary of the Green Paper that formed the basis of consultation during the initial NCEA development:

> Skills and knowledge are increasingly important to people's opportunities and employment prospects. As skills and knowledge grow in importance, so does the way we recognise that learning has taken place, skills have been acquired and a standard achieved. Qualifications provide such recognition. When students and employers invest in education, they need to be clear about what skills and knowledge the qualification recognises, and about the quality inherent in the qualification.
>
> For both individuals and the country as a whole, then, qualifications need to:
>
> - be credible and useful to employers;
> - be readily understood by the public;
> - give students every opportunity to advance their learning towards the qualifications they want, throughout their lives.
>
> The NQF is the Government's response to these needs. Its overall goal is to ensure that all major qualifications awarded in New Zealand convey to students and employers a value that is clear and credible.
>
> (Ministry of Education, 1997, p. 6)

Peddie (1998) elaborates on the manner in which the NQF reform was shaped to achieve the broad goal stated in the Green Paper. He lists the specific aims of the NQF development as:

- the creation of an open credit transfer system;
- the breaking of the academic/vocational divide;
- the removal of a "time-served" requirement that students spend a specified amount of time in gaining qualifications;
- the creation of an outcomes-based model;
- recognition of prior learning;

- the protection of teacher professionalism through encouraging teachers to rethink curriculum goals and assessment approaches in flexible ways;
- the development of a comprehensive quality control system.

Reform of employment related tertiary education, under the broad umbrella of the newly created Industry Training Organisations (ITOs), was a significant early development with the overall NQF reform process. To meet the first five aims listed above, the ITO reforms included a process for developing "unit standards" that could be used to assess workplace learning. Unit standards for conventional school subjects were only subsequently developed. While this transfer from workplace to school settings has created some problems, unit standards continue to be significant within the NCEA reforms. Issues that arose from this transfer of assessment process from workplace to school are briefly described next.

Assessing Learning Using Unit Standards

Initial NQF (and NCEA) development was built around unit standards. Each standard identifies one or more competency and performance-based elements, and lists relevant performance criteria. Unit standards for conventional school subjects were developed from national curriculum statements, while those related to workplace assessment were based on the expectations of tertiary providers and industry (New Zealand Qualifications Authority, 2001).

A unit standard is awarded when performance of these criteria has been satisfactorily demonstrated by the learner. On these terms only a "pass" judgment is possible. There is no provision for discrimination of degrees of performance, and thus no possibility of recognising "excellence" within the award itself. Excellence can of course be marked in any way that an interested community decides upon. However, in the context of norm-referenced secondary school qualifications, there has long been an expectation that formal assessment for qualifications will provide some means of ranking students by performance. This is one of the tensions that led to the development of "achievement standards" that are now integral to the NCEA development. As the Ministry of Education explains:

> Achievement standards are being defined to recognise superior student performance – students will achieve at credit, merit, or excellence level, unlike unit standards which were defined only at one level: students were either competent or not yet competent.
>
> (Ministry of Education, 2001a, p. 3)

Individual unit standards can be grouped together in various ways to document a qualification. The New Zealand Qualifications Authority (NZQA) provides a central registry and overall quality control for all the unit standards that have been developed, whether for traditional school subjects, or for the assessment of workplace learning. Some schools were quick to recognise the advantages of assessing certain subjects with unit standards, especially for students who need alternatives to "traditional academic learning". Compared with two decades ago, more students stay on at school beyond the compulsory years (Fancy, 2001) and their needs have not been easily accommodated within traditional, external examination focused, senior school subjects. The development of alternative pathways through the secondary school has thus been strongly supported by the opening up of this more flexible way of credentialling learning.

Uptake of unit standards for the assessment of conventional school subjects was, however, less enthusiastic. In part, this was a response to what was seen as the excessive fragmentation of subject areas into discrete "units" of learning. Workload tensions were already apparent at this early stage of the reform. Unit standards are totally "internally assessed". That means that teachers must make all the relevant professional judgments of their students' achievement, necessitating the development of stringent moderation procedures to ensure inter-school comparability. This considerably increased teachers' work in three key areas: moderation of the design of assessment tasks to the unit standards criteria and format; inter-assessor moderation of assessment judgments; and record keeping. The decision that students who did not demonstrate competence in reaching a standard could be reassessed compounded these other workload issues. Recent commentary from the Ministry explains that "intolerable workloads associated with alternative NQF qualifications based on unit standards that are totally internally assessed and moderated" (Ministry of Education, 2001a, p. 2) was one reason for the development of achievement standards.

Assessing Learning Using Achievement Standards

In answer to criticisms and implementation issues associated with unit standards, "achievement standards" for the "conventional" school subjects were first proposed in the late 1990s. Like the unit standards before them, achievement standards were developed from national curriculum statements and existing examination prescriptions. They have more generic performance criteria than unit standards, allowing judgment of student achievement to be made at three levels: "achieved", "achieved with merit" and "achieved with excellence". While unit standards were totally internally assessed, the use of external assessment (largely but not exclusively by public examinations) for at least half of the achievement standards that have been developed was explicitly intended to lighten teacher workloads (Ministry of Education, 2001a).

Within the context of ongoing qualifications change, it was a "government decision that achievement standards would be developed in the 'conventional school subjects'" (Ministry of Education 2001a, p. 4). The developers explain that the five to eight standards that have been developed for each subject represent "natural divisions (or topics) that occur in conventional school subjects". Thus an initial opportunity to rethink the traditional subdivision of school knowledge was bypassed in the interests of limiting the extent of the changes already taking place. Nevertheless, schools are free to create new courses that combine any mixture of unit and achievement standards that they may choose. The opportunity to break with traditional "subjects" has been created in principle, but it remains to be seen how it plays out in practice.

The ongoing qualifications reform began a process of staged replacement of all former senior secondary school qualifications (School Certificate at Year 11, Sixth Form Certificate at Year 12 and Bursary at Year 13) with National Certificates of Educational

Achievement at each of these year levels. The Year 11 replacement of School Certificate with the Level One NCEA is taking place this year—2002. At the time of writing this report, it is the government's intention that the Level Two NCEA will replace Sixth Form Certificate next year, but schools have been given the option to continue with Sixth Form Certificate if they wish to delay implementation for one more year. The PPTA has generally supported the development of the NCEA, on the basis that it clarified curriculum and assessment objectives and provided greater fairness to students. However, in 1997, PPTA members expressed concern over managing the complexities of implementation of the NQF more generally and over the resources that might be available to them to do so (PPTA Curriculum Advisory Committee 1997). Certainly the recent crisis over teacher pay and working conditions brought the NCEA into the spotlight, with teachers claiming insufficient remuneration for the additional workload associated with implementing the NCEA. While the resolution of this dispute has diffused remuneration issues, opinions remain split over the suggestion that the second stage of implementation—NCEA Level Two replacing Sixth Form Certificate—should be delayed for another year (Evans, 2002), arguably leading to the present state of compromise.

The broad policy agenda has been clearly spelt out by the Secretary for Education:

> I believe, through the effective implementation of the National Certificate of Educational Achievement (NCEA) we now have a real prospect to end nearly 20 years of debilitating division and preoccupation on qualification policy. This creates the opportunity to move the focus of professional debate and discussion back onto issues around student learning, effective teaching and the future evolution of our system of secondary schooling.
>
> I believe the NCEA will enable:
>
> - a more explicit and transparent focus on the standards students can be reasonably expected to achieve. Through the NCEA we can value and recognise wider learning outcomes, such as research, performance and creativity, as well as knowledge. We will be able to more effectively discuss and assess where we need to assist students to greater achievement, over what timeframe and by what means;
> - the educational focus of schools to move away from a pass/fail system, to one supporting a broader range of pathways for students, while also allowing students to gain qualifications at different speeds.
>
> (Fancy, 2001, p. 4)

Continuing Debates About Roles for Schooling and Student Needs

As outlined above, the NCEA developments aim to support and credential learning as flexibly as possible, for the widest possible range of students. There are, however, some yet to be resolved tensions within these worthy aims. As Dobric (2000) has pointed out, there are continuing debates over the role of senior secondary schooling, with four distinct possibilities:

- to gain credentials to demonstrate completion of schooling;
- to gain credentials for entry into the job market;

- to gain credentials for entry into tertiary education or a career with limited entry;
- to show that students have learned.

The issue of multiple possible roles for senior secondary schooling is closely related to that of identifying and meeting student needs. For the purposes of this research, student needs are defined through documents produced by the government bodies and other education organisations and interested parties. It is clear from many of these documents that student needs are very closely related to the obtaining of academic school qualifications. According to ERO, identification of student (learning) needs is a key part of what schools must do in order to be able to meet those needs accurately and effectively (Aitken, 1998).

On the other hand, the notion of student needs has been understood in broader ways that include social and familial support (such as the provision of healthcare services, hot breakfasts or cut lunches for underprivileged students, and counselling support). This broader definition was recently contested by a well-known liberal Auckland secondary school when the principal cut guidance counselling positions and instead used the money to fund more careers advisors, claiming counselling was not the job of schools, and student needs were better served with careers services (Middlebrook, 2001). Apple (2001) makes an entirely different point about student needs, arguing that schools' increased interest in attracting motivated parents and able children is a subtle shift from student needs to student performance, from what the school does for the student to what the student does for the school. In this case, the focus on meeting student needs actually masks the needs of the school.

Student needs in relation to secondary schooling have also become more complex with the advent of "staircasing", where tertiary providers who offer pre-degree or pre-diploma courses to prepare students for tertiary education often serve the same cohort as senior secondary schools (Dobric, 2000). The University of Auckland runs "New Start" courses, the "Wellesley Programme" (with certificate on completion), "Foundation Studies" (for international students) and an English as a Second Language entry course (with some papers creditable towards a degree). Unitec offers "Student for a Day" and "Step-up" secondary school exam preparation programmes. Many tertiary providers also offer student learning support which is unavailable at secondary school (Dobric, 2000). Examples of this include tertiary level study skills, IT skills, and student learning centres, as well as a myriad of subsidised student support services—childcare for student parents, support for overseas students, and welfare, financial assistance, counselling, and careers services for all students in need of these. However, once these services are accessed through the tertiary level, the individual student bears the cost.

Dobric (2000) describes a process known as "staircasing", whereby tertiary institutions provide assistance for students who may not have been successful at secondary level. This active tertiary support to meet entry requirements for other courses stands in contrast to the role of secondary schools in selecting (passing or failing) students for entry into tertiary institutions or the job market. However, at the other end of the "staircase", separately government-funded Secondary–Tertiary Alignment Resource (STAR) programmes are aimed at the senior secondary school level. STAR funding, available to all New Zealand secondary schools on a contestable basis, assists them to create courses that lead to work or further study. Such courses may offer credits against unit standards towards an NCEA qualification, or they may offer tertiary level qualifications.[1] Thus there has been an increasing blurring of the boundaries between secondary and tertiary level learning opportunities, with change taking place at both ends of the "staircase". These are all new and flexible ways to meet student needs which have the potential to cut across existing conceptions of an academic/vocational divide, and impact upon the ways in which schools understand their role in relation to senior secondary students.

Other research has emphasised the importance of resources available to support students as they make subject choices. Fitzsimons (1997b) found that the six schools in his sample required students to make choices about their subjects early in their school life, mostly around the end of the fourth form (Year 10), and these choices affected their choices of unit standards on the NQF. He also argued that these choices were contingent upon a theory of preferences which were shaped over time and "constructed" by many factors. Boyd, Chalmers and Kumekawa's (2001) research into transition from secondary schools to work and/or tertiary study found that students much preferred personal and hands-on information and guidance from career professionals to impersonal telephone services, websites, or videos. The researchers concluded that "activities that identify students' interests, strengths, and skills should be an earlier and continuous priority . . . In this study, students' personal interests were found to be the main motivator behind their career decisions" (Boyd et al., 2001). Fitzsimons (1997a) found that most students reported little help from the careers guidance system in their schools in relation to choices of study and their thinking about future employment. The importance of teachers identifying and meeting needs in the subject and pathway choice process is underlined here.

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[1] NZCER is currently carrying out research in the senior secondary school transition area. The first project is an evaluation of the Secondary–Tertiary Alignment Resource, which has highlighted the enormous breadth of STAR-funded course options and arrangements for students within different schools. The second Innovative Pathways project is on school programmes which assist students failing at school, who may also be known as "at risk" students, to move from school into jobs or further study.

SECTION THREE: RESEARCH METHODOLOGY

A longitudinal approach, allowing for information to be collected over time, was chosen for this research. Patterns of student needs and learning pathways, and schools' abilities to meet these, across Year 11 cohorts both within schools and across the six case study schools will be described over three consecutive years. The first of these years, 2002, is the first year of implementation of the NCEA initiative at Year 11.

A case study methodology, involving multiple cases (the six schools), is being used. Our aim is to investigate a particular phenomenon (schools meeting student needs) within a real-life context (an evolving assessment regime). That context is highly relevant and not easily (nor desirably) separated from the phenomenon. This combination of features points to the suitability of case studies (Yin, 1994).

The case studies are focused on perceptions of school administrators, teachers, and students concerning student subject choice and actual current practice in the range of choices offered to students, timetabling constraints, and course prerequisites. The relationship of these current subject choice practices to assessment and moderation practices is also examined.

The Research Questions

The main research questions for this study are:

1. How do schools' assessment regimes, course structures, and selection practices reflect the intention of the national curriculum, in particular the principle of providing for "flexibility, enabling schools and teachers to design programmes which are appropriate to the learning needs of their students" (Ministry of Education, 2001)?
2. Do students perceive their choices in the same manner as their teachers?
3. Do students perceive their choices in the same manner as their parents?
4. Are there any patterns in student subject choice in relation to subject-clustering, socio-economic status, ethnicity, and gender?
5. Are schools assessing and reporting on a wider range of student abilities than they were prior to the introduction of the NCEA?
6. Have school subject choice policies been changed as a result of the NCEA? If so, how?

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Selection of the Case Study Schools

The six secondary schools invited to participate in the study were chosen from four geographic areas. Together they encompass a diverse range of schools.

The schools were selected with a common variable of school size in mind. School size is a key variable in the determination of the range of subject choice that can be offered within the constraints of available staffing and timetable organisation. The size range for our selection of schools was based on the average range for numbers of students in schools nationally. This average range is between 650 and 850 for mid and upper decile secondary schools, although we also included one rural school which was slightly below this average size. We have been able to include one low decile school that falls within the size range. City School C is larger than the national average size for low decile schools which tend to be smaller.[2]

Table 1

Case Study School Profiles

Categories	No. of Schools
Decile 2	1
Decile 5	2
Decile 6	1
Decile 7	1
Decile 8	1
North Island	4
South Island	2
Rural town	3
City	3

Methods of Data Gathering

School Documentation

The first phase of the research involved the collection of school and course/subject information related to:

- course and timetable information;
- subject information available to Year 11 students;
- school policy statements relevant to subject choice or pathways;
- Year 11 student subject choice selection forms.

This information has been used to create a summary of current subject choice practice in each school. It will be updated in each year of the study to track any changes that take place.

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[2] National average roll sizes for deciles 5, 6, 7, and 8 are 690, 714, 753, and 868 respectively. National average roll size for decile 2 is 521.

Staff Interviews

Interviews with the principal and five subject Heads of Department (HODs) at each school will be carried out twice yearly.

HODs identified for interview represent the subject areas of English, the arts, mathematics, science, and technology. These five subjects accommodate a range of variables so that the subjects:

- form part of the core curriculum at Year 11 (English, mathematics, science);
- are in subject areas with existing multiple possible subject choices (the arts, science, technology);
- are in an area where unit standards have been widely adopted and may continue to be a preference in some cases (technology);
- are in an area where innovative, practically based learning experiences and/or a focus on creativity and innovation has been emphasised in the curriculum (the arts, technology);
- allow the literacy and numeracy skills focus of the curriculum established at primary schools to be followed up in terms of its application in subject/course choice at secondary level.

Student Questionnaires and Interviews

In each of the three years of the study, students at each of the six schools will complete a questionnaire that explores the Year 11 subject choices they have made and their perceptions of the factors that have influenced these choices. In this first year of the study, these questionnaires have been completed and the findings are reported in Section Six.

The student questionnaire was piloted with one co-educational Wellington region school in December 2001. The results of this pilot were used to reshape the student questionnaire administered to the six case study schools in 2002. Further changes are anticipated for 2003, when students at each school will receive a questionnaire that is individualised to the specific Year 11 option choices available in that school.

Questions that arise from the analysis of the questionnaire in each year will form the basis of telephone interviews to be carried out with a sub-sample of students from each school. Possible avenues for shaping questions for the 2002 cohort are indicated in Section Six of this report.

Chronology of Data Gathering Stages

The various data gathering methods to be followed in each year are co-ordinated as follows:

Table 2

Summary of Case Study Data Gathering Methods

Timing	Method(s)	Focus
Term 1 2002	Collection of documentation	Description (2002) and updating (2003/2004) of school subject choice practices
	Principal and HOD interviews	Perceptions of student needs in relation to subject choice practices made for that year
	Student questionnaires	Patterns and perceptions of personal subject choices
Term 3 2002	Student interviews	Follow-up to questionnaires
Term 4 2002	Follow-up principal and HOD interviews	Tracking subject choice and timetable decisions for following year in relation to issues raised, and experiences of the NCEA changes as these unfold

Ongoing data collection will describe any change in approach to meeting student needs, both in intention and as such change is actually worked out in practice. The comparison of intentions and actual change will provide rich insights into the dynamics of the NCEA implementation in action.

SECTION FOUR: SUBJECT CHOICE IN THE SIX CASE STUDY SCHOOLS

Introduction

This section of the report describes the Year 2002 subject choice practices and decisions of each of the six case study schools. These descriptions were derived from each school's relevant documentation and from the first round of principal and HOD interviews. Each description forms a base line against which changes in the school's policy and procedures can be tracked over the three years of the study. Descriptions were returned to individual schools for checking and clarification of details as preparation of this report began. Each school has been given a pseudonym to protect privacy. Any details that, in the opinion of the school, could have led to its identification have been omitted.

The individual case studies also record the opinions of the principals, HODs and students in each school regarding subject choice options and actions. For the staff, the primary focus of the interviews was to clarify perceptions of subject choice decision-making practice in the light of the changing NCEA environment. Many HODs, while initially feeling under some time pressure because of workload issues, commented that they had enjoyed the interviews and felt stimulated by the professional conversation. Interviews typically lasted for the duration of one school period. Further data emerging from the first round of HOD interviews are reported by subject area in Section Five. Principal and HOD interview schedules are included as Appendices One and Two.

The student questionnaires focused more on the actual choices the students had personally made, their perceptions of what had influenced these, and their feelings about the actions both they and the school had taken in relation to subject choice. The student questionnaire is included as Appendix Three. While there were some differences between individual schools with respect to the student data, there were more broad similarities across all six schools in the emerging trends and issues. Collective data from the student questionnaires are reported in Section Six. Each school organised some specific time for questionnaire completion, and students were given choices concerning their participation. Some opted not to complete the questionnaire at all, while some completed it anonymously. Others both completed the questionnaire and identified themselves to indicate their willingness to be contacted for a follow-up interview.

A Comparative Overview of the Schools

We found broad patterns of similarities and differences with respect to subject choice issues and solutions. Four of these patterns are briefly outlined here to provide a context for the views expressed by the staff in each school in the case studies that follow. They are: the relative size of each Year 11 student cohort; the patterns of subject course options offered as choices at each school; the constraints of clustered subject lines within the timetable structure; and students' perceptions of their subject choice options.

The Size of the Year 11 Student Cohort

Staff in some schools tended to see themselves as being restricted in the choices they could offer because of their "smallness" compared with other schools. However, school size was a key variable controlled in the design of this research. Year 11 student numbers ranged from 141 to 184. Differences of 20 or more students could result in the formation of one extra class at a year level, opening up one more opportunity for possible new combinations of choices. However, the variation did not have any significant impact on differences in the range and numbers of courses offered in the schools. In fact, the school with the largest Year 11 student cohort offered the smallest range of subject course choices, but set these courses within the widest range of potential qualifications.

Table 3

Comparative Statistics from the Year 11 Student Cohort

School	Roll numbers Years 9 – 13	No. of Year 11 students	% of Year 11 students responding
City School A		168	68
City School B		172	68
City School C		160	56
Town School D		171	66
Town School E		184	93
Town School F		141	88

The larger return of completed questionnaires from two of the "town" schools was not apparent until all the data had been collated. Students were given the choice of making a response, and both blank and completed questionnaires were returned to us. It may be that city students are more inclined to flex their "personal freedom" rights than their town or rural counterparts, although this could not explain Town School D's response rate. Or it may be that city schools are more likely to be sites of educational research, and there is less novelty for students in being provided with opportunities to express their views. At this early stage of the research, we are unsure how this difference has impacted on the data collected. Given that there are more similarities than differences between student responses across all six schools (see Section Six), it seems unlikely that this difference in response rate has impacted on the patterns reported here.

Numbers of Subject Choice Options

Perceptions about the numbers of choices offered to students in the various schools interested us. In some cases there is a large range of courses from which students can choose. In other schools the range is more restricted, although staff in these schools were also inclined to think they provided well for student choices.

It should be noted that a strong educational argument for restricting option choices at Year 11 was offered by some of the teachers interviewed. All schools wrested with the dilemma of "keeping options open" as opposed to providing for personal choice. There is a delicate balance to be achieved here. The students themselves firmly linked the choices they had made, or desired to make, to expectations of personal enjoyment.

Data about choices is summarised in Table 4. Columns 2–4 display different aspects of subject choice, as explained below.

Column 2: The Compulsory Subjects

Choice *within* compulsion was a theme that emerged from the structuring of "core" subjects in all six schools. For most of the schools, the diversity of within-subject choices represented a recent change, made possible by the NCEA development. Many of the interviewed HODs in the core subject areas were very positive about the opportunities they now could provide to break down perceptions of "cabbage" subjects—in English and mathematics in particular. The trend to multiple alternatives within compulsory subjects is identified in the second column of Table 4.

Columns 3 and 4: Traditional and Innovative "Choice" Courses

It was an explicit intention of the NQF development that students could gain credentials for more than just academic learning. To track this intention, Table 4 provides a separate column for "innovative" and "traditional" options. (It should be noted that innovation is possible within the traditional subject areas. Although not common in our case study schools as yet, some instances of this were identified and are described within the case studies.) The technology curriculum area provides the widest range of examples of both types of courses. Traditional "materials technology" subjects are typically offered in a range of materials (wood/metal/fabric/food) and are assessed by NCEA achievement standards. By contrast, one school offers a course called "creative technology" which combines elements of visual arts, design skills, computing skills, and technological processes, and is assessed by Web Design unit standards. Innovative courses such as this are listed in Column 4 of Table 4, as are vocationally oriented courses.

Table 4 also provides a context against which to weigh the perception of some staff that their school did not cater well for the subject choice needs of this particular group of students.

Table 4

Subject Choice Numbers in Three Areas

School data	Alternatives in "core" subjects*		Option nos. in "traditional" subjects		Option nos. in "innovative" choices	
	Maths	3	Languages	5	Info mgmt	1
City School A	English	2	Soc. sciences	3	ESOL	1
Roll number: 790	Science	2	Arts	3		
No. at Year 11: 168			Technology	4		
			Health/PE	1		
Overall Total: 25	Total	7	Total	16	Total	2
	Maths	2	Languages	3	Alternative technology	6
City School B	English	2	Soc. sciences	2	ESOL	1
Roll number: 808	Science	4*	Arts	3	Career/work focused	2
No. at Year 11: 172			Technology	5	Senior recreation	1
			Health/PE	1		
Overall Total: 32	Total	8	Total	14	Total	10
	Maths	3	Languages	4	ESOL	1
City School C	English	2	Soc. sciences	4	Transition	1
Roll number: 852	Science	1	Arts	2	Text info mgmt	1
No. at Year 11: 160			Technology	4		
			Health/PE	1		
			Accounting	1		
Overall Total: 25	Total	6	Total	16	Total	3
	Maths	3	Languages	3	Alternative technology	3
Town School D	English	2	Soc. sciences	3	Text info mgmt	1
Roll number: 825	Science	4*	Arts	4	Careers focused	2
No. at Year 11: 171			Technology	4		
			Health/PE	1		
			Accounting	1		
Overall Total: 31	Total	9	Total	16	Total	6
	Maths	3	Languages	-	ESOL	1
Town School E	English	2	Soc. sciences	4		
Roll number: 956	Science	3*	Arts	3		
No. at Year 11: 184			Technology	4		
			Health/PE	2		
Overall Total: 22	Total	8	Total	13	Total	1
	Maths	3	Languages	2	PE/Life skills	1
Town School F	English	2	Soc. Sciences	5	Alternative technology	3
Roll number: 590	Science	3*	Arts	3		
No. at Year 11: 141			Technology	4		
			Health/PE	-		
Overall Total: 26	Total	8	Total	14	Total	4

* Includes horticulture as an option choice

Timetable Line Clusters

Notwithstanding the total number of course options offered, choice for secondary school students is unavoidably constrained by timetable structures. Timetable line clusters used to create the Year 11 classes in 2002 in three of the six schools are summarised below. Students must choose one subject from each available cluster because subjects within a cluster take place at the same time. Two of the examples illustrate how, even in the schools that offer the most potential choice, certain combinations will not be possible within a six-option-lines format. The third shows how the use of five option lines reduces the possible combinations. The complexity of clustering timetable lines to create the least number of clashes for individual students is readily apparent.

City School B

Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
Art	English	Accounting	Computing	Automotive	Art
Creative Tech	Graphics	English	English	Computing	English
F. English	Horticulture	F. Maths	ESOL	Drama	Fabric Tech
English	Japanese	French	Food & Nut	English	Design Tech
History	Maths	History	Geography	Maths	Māori
Maths	PE	Maths	Music	Science	Maths
F. Maths	Food Tech	Recreation	Science	Txt Info Mgmt	Prac Comptr
Science	Prac Wd Wk	Science	F. Science		Science

In this school, some of the combinations that would not fit the timetable structure are: horticulture and practical woodwork; fabric tech and/or Māori and/or design tech; drama and/or automotive and/or TIM. On the other hand, a choice on one line can have consequences for other choices. Thus a student who wished to take both drama and computing could do so, but could not also select ESOL.

Town School D

Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
Art	Biology	Computing	Accounting	Biology	Accounting
English	English	Economics	Alt. English	Drama	Alt. English
Food/Nutrtn.	English	Alt. English	Food/Nutrtn.	English	English
Geography	Māori	English	French	Geography	History
Graphics	Basic Maths	Japanese	Horticulture	Graphics	Basic Maths
Intro. Maths	PE	Maths	Maths	LINCs*	Science
Basic Maths	Science	Music	PE	Maths	BioTch/Food
PE	H. Mat. Tch.	Science	P. Music	Basic Maths	Txt Info Mgmt
P. Music	H. Mat. Tch.	Science	Alt. Science	PE	Struct/Mech/
Science	Txt Info Mgmt	Alt. Science	Txt Info Mgmt		Electronics

Gateway courses fit on any suitable option line for an individual programme, as do any subjects studied with The Correspondence School.[3] * LINCs is a future work focused programme.

In this school, technology option choices are managed by clustering on timetable lines. For example, students who want to take structures, mechanisms and electronics cannot also choose biotechnology and food. As in City School B, less popular subjects that appear on only one timetable line may also create clashes for some students. Here students could not choose both Japanese and music, for example, although they could opt

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[3] Many New Zealand secondary schools use The Correspondence School to provide subjects that they cannot staff because of very small numbers/limited demand.

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for performance music if this was a combination they felt strongly about. Also noteworthy is the clustering of within-subject alternatives on some lines. Depending on class numbers, this can allow for some movement if staff judge that students make an inappropriate choice.

City School C

Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
Accounting	English	English	Art	Accounting	
Economics	Alt English	Alt English	English	Art	
English	French	Geography	Home Ec	English	
Graphic	Graphics	Maths Prac	History	ESL	
Home Ec.	Japanese	Alt Maths	Humanities	Maths	
M. Tch Wood	Māori	Maths	Maths Prac	M. Tch. Metal	
PE	Mathematics	Science	Maths	PE	
Science	M. Tch. Wood	Txt Info Mgmt	Music	Samoan	
Transition	Science			Transition	
	Txt Info Mgmt			Txt Info Mgmt	

The limitation of combinations when there are five timetable lines is readily apparent. In this school there are more potential clashes than in the other two. Students wishing to take several languages, for example, could do so only if one option were Samoan. As in the other schools, inappropriate combinations are restricted by option line clustering—students cannot take both history and humanities, for example.

Students identified timetable clashes as the most common reason for not being able to take all the subjects they wanted (see Section Six). It is evident that the provision of still more choice would not of itself solve this dilemma. In any case, as already noted, the provision of wider choice at Year 11 has some drawbacks, and is a topic of considerable debate in several of the case study schools.

Students' Perceptions of Subject Choice Options

There are interesting differences between the actual number of choices in each school (as shown in Table 3) and students' self reports of experiencing choice limitations. Table 5 summarises overall patterns of students' responses regarding the subject choices they wanted to take, but could not. It also shows the percentage of "wish list" responses, where students nominated subjects that are not currently offered in the school.

Table 5

Summary of Selected Student Subject Choice Responses

School details (see Table 3)	% unable to take an offered subject	No. of timetable lines	% naming different subject options
City School A 25 alternatives	43	6	65
City School B 32 alternatives	33	6	50
City School C 25 alternatives	37	5	52
Town School D 31 alternatives	27	6	43
Town School E 22 alternatives	16	6	57
Town School F 26 alternatives	23	6	47

Town School E offers fewer alternatives, yet fewer students than at any other school reported not being able to take their choices of the subjects offered. Close to half of the students in all the schools could envisage alternative subjects that they would like to study at school, given the opportunity. Collectively, a very wide range of such subjects was nominated, although some made only very general reference to students' areas of interest —for example, "something to do with horses", typically linked to "because I want to work with them when I leave school".

CITY SCHOOL A

Overview

City School A is a decile 6 inner city, single sex girls school. Although it is located close to the heart of an urban area, some students who attend are drawn from a range of surrounding suburbs. The student population is ethnically diverse and includes some students whose families have recently come to New Zealand, as refugees, or as immigrants, especially from Pacific nations. Students come from homes that span the full socio-economic spectrum, and the school works hard to try to meet the wide range of subject choice needs generated by this very diverse population.

In this school we spoke to the principal and six other staff: the HODs of mathematics, English, science and technology, and the music HOD, as a representative of the arts curriculum area. The sixth staff member was the Year 11 dean, who has the overall responsibility for advising students on their subject choices, and for making adjustments to their programmes where necessary. The dean also undertook the administration of the student questionnaire, and this was completed during form time, on a day subsequent to our visit to the school. There were 168 Year 11 students at the time of our visit.

Year 11 Subject Organisation

Students at City School A take three or four compulsory subjects at Year 11, depending on their perceived academic ability. The optional subjects are placed on three of the timetable's six lines of clusters, and these are reorganised each year to accommodate the maximum number of subject combinations requested by the student cohort. Students make their choices near the end of Year 10, and staff go to considerable efforts to counsel them to choose wisely. Students may be able to make changes during the first three weeks of the new year, but only if there is room in the classes to which they wish to transfer. Some courses have the prerequisite that the subject has been taken at Year 10, meaning that students effectively made the subject choice at the end of Year 9. These include languages, art, graphics, and music. Technology subjects do not have a prerequisite.

Choices Within Compulsory Subjects

English, mathematics and science are all compulsory, and health/physical education is compulsory for students who are not taking a fully academic course. Academic students make three option choices, while those who are advised to take the health/physical education option make two choices.

Mathematics

The mathematics teachers have restructured their courses as part of their planning for NCEA implementation. There are now three types of Year 11 mathematics offered:

- a full achievement standards course;
- a course that is assessed by five of the nine achievement standards from the "full" course, and two unit standards;
- a course assessed by the lower level National Certificate of Employment Skills unit standards.[4]

English

The English teachers have also restructured their courses as part of their NCEA implementation. Two types of Year 11 English are now offered:

- a full achievement standards course;
- a course that is assessed by three achievement standards, four unit standards, and the Practical English Certificate examination.

An ESOL course is offered for students for whom English is a second language. This course is an option, taken in addition to the English course.

Science

Students at City School A have two alternatives for their compulsory science component:

- a full achievement standards course, which has been redeveloped from the modular science course that the school previously offered;
- the NZASE certificate in science course, which is assessed with National Certificate of Employment Skills (NCES) unit standards.

Physical Education and Health

This is a full year course, taken by all students who are not doing three other full option courses.

Careers

All students undertake some study of careers, in addition to their other subjects.

Allocation of Students to Within-subject Alternatives

Staff undertake a process of appraisal of each student's progress at the end of Year 10. Records of learning for Years 9 and 10 are collated for each student for each compulsory subject and used to create ranked lists, which form the basis of placement of students into within-subject options. While the process is "highly organised", it is not binding. Parents can, and sometimes do, request changes. Where there are too many students for the available places in "less academic" options, student behaviour in school is taken into account. Several HODs expressed a preference to select students who will "genuinely benefit" from such placement for the alternative classes, with those whom the staff believe could achieve if they made more effort being dispersed amongst the other classes, where most students are willing to learn.

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[4] These are set at curriculum levels 4 and 5. Students doing NCES gain fewer credits in comparison to students doing NCEA.

Optional Courses

Depending on their academic ability, as determined by the process described above, the girls at City School A choose two or three optional subjects from the following wide range.[5]

Social Sciences (3 available options)

Economics, geography, history.

Languages (5 available options)

Chinese, French, Latin, Māori, Samoan.

The Arts (3 available options)

Art, dance and drama, music.

The school offers an integrated performing arts course at Year 12, and the HOD envisages that this could be offered at Year 11, if a sufficiently strong case can be put to the school's curriculum committee.

Information Management (1 option)

Technology (4 available options)

Fabrics and design, food and nutrition, graphics and design, workshop technology.

Subject Choice Across Years 9–13

Year 11 is a pivotal year, and Table 6 summarises subject links across Years 9–13. This table shows how choices at Year 11 relate to what has gone before in the junior school, and the pathways that will potentially open up in the senior secondary school. Similar tables are provided for all six case study schools.

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[5] Once all students have selected their preferred combinations, the timetable lines are constructed to create the fewest possible clashes. Once this has been done, those students who do have clashes will need to revisit some choices.

Table 6

Subject Choice Structure at City School A in 2002

Curriculum Area	Year 9 (3 options)	Year 10 (3 options)	Year 11 (2/3 options)	Year 12 (5 options)	Year 13 (4 options)
English and languages	**Compulsory** English	**Compulsory** English	**Compulsory** English or Prac. English	**Compulsory** English	**Compulsory** English
	Optional Chinese French Latin Māori ES* Reading	**Optional** Chinese French Latin Māori Samoan ESOL Reading	**Optional** Chinese French Latin Māori Samoan ESOL	**Optional** Chinese French Latin Māori Samoan ESOL	**Optional** Chinese French Latin Māori Samoan ESOL
Mathematics	**Compulsory** Mathematics	**Compulsory** Mathematics	**Compulsory** Mathematics OR Slower maths OR Easier maths	**Optional** Mathematics Vocational Maths	**Optional** Calculus Statistics
Sciences	**Compulsory** Science	**Compulsory** Science	**Compulsory** Science or NZASE science	**Optional** Biology Chemistry Physics	**Optional** Biology Chemistry Physics
Technology	**Compulsory** Computing/ Technology **Optional** Fabrics/Design Food Tech. Graphics/Desig Wkshop. Tech.	**Optional** Fabrics/Desig Food Tech. Graphics/Desi Wkshop. Tech.	**Optional** Fabrics/Design Food/Nutrition Graphics/Desig Wkshop. Tech.	**Optional** Fabrics/Design Food/Nutrition Graphics/Desig Wkshop. Tech.	**Optional** Fabrics/Design Food/Nutrition Graphics/Desig
The Arts	**Compulsory** Art Music **Optional** Drama/Dance	**Optional** Art Music Drama/Dance	**Optional** Art Music Drama/Dance	**Optional** Art Drama Māori PA Music Photography Vocal studies	**Optional** Painting Design Music Photography Vocal studies
Social Sciences	**Compulsory** Social Studies **Optional** Economics	**Compulsory** Social Studies **Optional** Economics Geography History	**Optional** Economics Geography History	**Optional** Art History Classical stud Economics Geography History	**Optional** Art History Classical stud Economics Geography History
Health and PE	**Compulsory** Health PE	**Compulsory** Health PE	**Compulsory** for some Health/PE	**Optional** PE	**Optional** PE
Vocational/ Other		**Optional** Information Management	**Compulsory** Careers **Optional** I **Optional** IM	**Optional** Accounting Comp. stud IM Life skills Vocational Computers	**Optional** Accounting Self Management Legal stud/IM Tourism/Hosp Voc.Comp.

- English for speakers of other languages

Catering for Student Subject Choice

The interviewed staff were all positive about the school's ability to cater for subject choice for most students. The principal believes that the school "bends over backwards" to accommodate student choice, despite the resourcing challenges that this poses. Language classes are often small and the school uses operations grant money to sustain staffing for these. She feels it is important to do this because for some students, languages may be one of the few areas where they can be successful. She firmly believes that parents want the best for their children, and they "keep the school on its toes" in terms of the subject choices they demand. Increasing costs are of concern, especially as these must be passed on to parents where expensive materials are needed for a course. Photocopying bills are also rising, as more widespread use of student "course books" is creeping in to staff practice.

Staff ratings of how well the school was thought to cater for student subject choice were clustered towards the high end of the continuum:

extremely well	very well	fairly well	not very well	not well at all
1	4	2		

One person said that the only reason she would not choose the "extremely well" rating was that, ultimately, "best fit" principles had to apply, so that a few students could not get the complete combination they desired. On the other hand, one person who selected "fairly well" felt that placing all the "choice" courses on three option lines did limit the combinations possible. The other person who chose the "fairly well" rating was concerned that some ESOL students were being inappropriately placed in mainstream classes before their English was sufficiently well developed.

One HOD felt that choice was opened up because of the school's policy of providing students with a wide range of experiences at Year 9. Some subjects that later become optional are compulsory at Year 9,[6] and the HOD felt that this gave all students access to experiences that got rid of any possible "elitist" feeling by showing them that anyone could successfully study in some of these areas.

When asked about timetable issues, the principal perceived an irony, in that the timetable-in-action has actually become more rigid in this first year of NCEA implementation. To meet perceived increased time requirements for internal assessment, teachers have become very opposed to interruptions to their classes. Where previously "one off" experiences and trips could cut across periods, this was now less likely to happen. This concern about interruptions and perceptions of very tight time frames for teaching was borne out by comments made by several of the HODs.

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[6] English, Mathematics, Science Social Studies, Art, Music, Physical Education, Health Education, Computing and Technology are all compulsory at Year 9. Art, Music, Computing and Technology become optional at Year 10.

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Meeting Student Needs

The HODs of all the compulsory subjects felt that the provision of within-subject alternatives was working well to cater for the learning needs of their diverse range of students. One described the manner in which flexibility is maintained in the process for determining how many of each type of alternative within her subject might run for a particular year's student cohort. The Year 9 and 10 results for every topic that has been assessed are ranked and checked for internal consistency. (In her experience, ESOL students do better in some assessments than in others, and care is taken not to disadvantage them in the ranking process. Reading requirements can limit the ability of some students to achieve in this subject.) Once the ranking has been done, the number of each type of class can be determined.

This HOD also noted that the alternative that combines achievement and unit standards caters well for the wide cultural mix of students in the class, many of whom need more time for their learning. The lower number of achievement standards offered in this alternative provides this extra time, and limits the amount of external assessment in the course, while the unit standards provide more internal assessment, as these students tend not to perform well in examinations. With this arrangement, students are more likely to be able to complete the balance of achievement/unit standards needed for a Level One NCEA qualification in the following year.

Another HOD described the manner in which a combined unit standard/achievement standard course has been tailored to the interests of the students who will study it. Based on their experiences with an alternative course in this subject at Year 12, the staff resequenced and simplified some components and selected different course materials.

The principal saw the increase in alternative choices within the compulsory core subjects from a somewhat different perspective. She expressed the concern that these alternatives could come to serve as a de facto form of streaming along ethnic lines. Unless care is taken to avoid this, subjects with several alternatives could end up with a "white top stream" in the full achievement standards courses, and a "brown bottom stream" in the Certificate of Employment Skills unit standards courses.

Several HODs also expressed concerns that there were still too few options choices for non-academic students. (Only one vocational course is offered at this level, for example, although several such options become available at Year 12—see Table 3.) One result of this is that the non-academic students often end up in all the same option classes, and hence do not mix sufficiently with other students. One HOD was concerned that non-academic students were often counselled to take a particular subject that has been "intellectualised" in the development of achievement standards. The HOD believed that these changes have put successful achievement in the subject beyond the reach of some students who are encouraged to take it. However, the subject selection advice also discourages more academic students who could actually find the subject very stimulating. A quite different challenge concerns those students new to New Zealand who will be academically able once they have a sufficient grasp of English. One HOD expressed the concern that some of these students "try to fly before they can walk", and several felt that the school is not yet providing a sufficient variety of learning experiences tailored to their particular needs.

In addition to the changes made within all three of the compulsory core subjects (English, mathematics, science) other HODs have made, or are considering making, new combinations within their subjects in response to the NCEA. However, one HOD expressed the concern that discrimination between components within the subject area was creeping in as a new development, with students selectively targeting their effort to areas where they felt they could achieve well. Another HOD saw many more possibilities for reworking courses than could at present be worked through, because "energy and creativity are needed to make new changes work and staff are currently feeling too stressed for that". Several foresaw the introduction of multilevel timetabling, with students being able to select courses appropriate to their achievement potential from all three levels of the senior secondary school. One person voiced tentative thoughts about the possibility of creating different sorts of "blocks" of time within the more traditional timetable structure.

Like their counterparts in the other case study schools, most HODs felt that the actual subject boundaries were unlikely to change a great deal. One HOD did foresee new subject combinations. She noted that Health/PE was now a formal subject, and that new composites of both social sciences and sciences could be possible at Year 11, although she also saw dangers in closing off future options if students specialised too soon. Integration of selected components of existing subjects, with the aim of reducing their overall number, is certainly a potential avenue for opening up new choices. However, while the principal believes that the present curriculum is seriously overcrowded, she does not think that most of the staff would readily embrace a change to integrated studies at present. She notes that they are very concerned about curriculum coverage in their own areas as they adjust to the new regime.

Views on NCEA and Student Achievement

The principal is supportive of the possibilities that NCEA has opened up, but is "depressed by all the negativity" that has surrounded the development in general. She sees it as a really positive change for the students themselves, because it allows better pacing of learning for the less able, yet it will be very challenging for the brightest students to reach excellence consistently for three years running.

Because standards-based assessments are much more explicit about what constitutes achievement at a particular level, the principal believes that these new qualifications could encourage individual students to lift their own performance. The perception of a "canon of 'bright' subjects" has been broken down now that all can be assessed for qualifications. The potential to gain credit for skills and abilities that were not formerly assessed has ensured that there is much more recognition of the "whole child". This provides an opportunity to look in a more subtle way at special needs of a wider range of students, perhaps with literacy and numeracy initiatives, for example. The principal pointed out that the new NEGs and NAGs require this, but she does not think the resources needed to follow through on such initiatives are available at present. She pointed out that the provision of additional options inevitably creates at least some smaller classes, requiring either more staff to be employed or "core" classes to swell considerably. This dilemma was also mentioned in several other schools. She is philosophically opposed to prerequisites and to preventing students from making free choices. However, the risk of becoming a gatekeeper has to be weighed against providing appropriate advice, so that students make realistic choices for their abilities.

Several staff commented that Year 11 students in City School A are much more focused now. They are very aware of the new qualification and they are working more consistently, with raised levels of achievement. One HOD noted that the introduction of achievement standards has evened out the effort students need to put into each subject, and that this is "making the bright kids think more" about their overall learning. Another commented that the students are enjoying their learning and are "bubbling over" because they feel successful. However, some HODs worried that the more competitive students, who expect to be the most academically successful, may find the "broad bands" of achievement levels (achieved, achieved with merit, or achieved with excellence) demotivating compared with ranked and norm-referenced marks.

Staff were generally not positive about the usefulness of the subject specific exemplars[7] that are intended to model assessment practice for teachers. One HOD has written her own tasks rather than use the exemplars, and she commented that some of the exemplars were set in cultural contexts that were inappropriate for her mix of students. She noted that this developmental work had increased her workload in the short term, but "in the long run it will be worth it". Another HOD noted distinct differences in the standard of the exemplars in two different curriculum areas, saying that one was "a long way behind" in the thinking revealed. Still another noted that some exemplars that seemed straightforward at first actually did not cover all the contingencies that arose when they were used. This HOD noted that staff needed a lot of meeting time as they worked together to determine standards and to moderate their judgments, and that this was creating a "dry" subject where there was less room for teachers to make personal choices. Time taken for moderation within the department was also mentioned as an issue by another HOD, who noted that this compounded the strain of trying to work with "flawed" exemplars that were not generally available until very close to the time they were needed. One HOD suggested that the NCEA related stresses had actually become a "lightning rod" for workload and stress issues that were already there.

Students on Subject Choice

There were 115 responses returned from a total Year 11 cohort of 168 students,[8] a 68 percent response rate.

Nineteen percent of the students thought that the school was extremely or very helpful with the process of making their subject choices. Just under half saw the school as only slightly helpful or not helpful at all.

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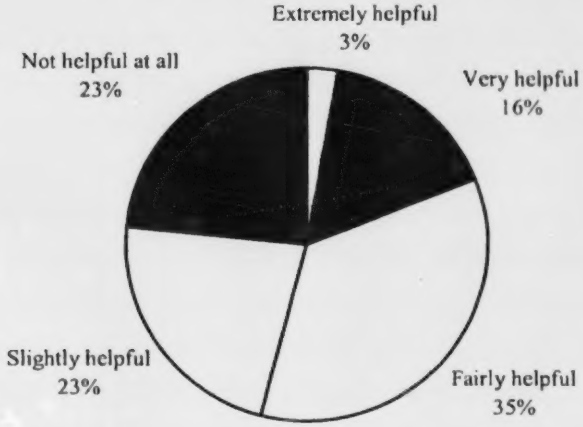
[7] Internally assessed exemplars are provided by the MOE, externally assessed exemplars by NZQA.

[8] Of the 168 students, 10 are foreign fee paying students and three are special needs students.

Figure 1

School A Student Perceptions of School Help with Subject Choice



It may be that the seemingly lukewarm response to the question about the school's helpfulness is a product of the manner in which the response options were structured. Fifty-four percent of the students found the school at least "fairly helpful".

Forty-three percent of the students indicated that they had been unable to choose an option they wanted. Most gave one reason for not being able to take a subject that they desired, but a small number reported two or more reasons that constrained their choice(s). The main factors that acted as constraints were seen to be:

- choice constrained by timetable clashes (18 responses);
- preferred subjects not taught at the school (16 responses);
- need to prioritise between available choices (8 responses);
- self-perception of lack of ability in subject (6 responses);
- not meeting entry requirements to the subject(s) (5 responses);
- advised against taking the subject(s) by parents or caregivers (4 responses).

Other Subjects Seen as Desirable

Sixty-five percent of the students suggested one or more variations on the available subject areas in which they would like classes to be offered. Often it seemed that students were looking ahead to the Year 12 and 13 options (see Table 6). For example, photography was mentioned by students who wanted another arts option. Despite the large number of language choices already available, 42 students (36 percent of the respondents) were particularly keen to see other languages offered at the school. The most popular choice of language not currently offered was Japanese, followed by German, and Spanish.

This pattern was unique to City School A. In three of the other five schools, new types of arts options topped the list of desired subjects, but most students in City School

A clearly felt they were well served in this curriculum area. The numbers in each type of response category are:

- languages (42 students);
- non-IT technology subjects (13 students);
- vocational subjects (11 students);
- information communication technology subjects (8 students);
- arts subjects (7 students);
- physical education or health subjects (5 students);
- life skills or recreation-craft related subjects (1 student);
- social science based subjects (1 student).

By far the most popular reason given for wanting these other subjects was "personal enjoyment or interest" (38 responses). The next most popular reasons were "future career" (10 responses) and "for the challenge and/or skills" (also 10 responses). Six students made responses that were grouped as "usefulness for (non-career) adult life". Personal enjoyment and interest was the significant motivator for students taking physical education and art in particular.

Summary

City School A continues to offer a relatively traditional, academically oriented curriculum. The range of language options offered is a particular strength, especially in view of the very diverse range of cultures represented within the school. This emphasis on languages may in fact have encouraged students to think of other possibilities, and therefore to mention more languages as desirable. These wishes are unrealistic in view of the timetabling constraints outlined at the beginning of Section Four. A similar type of response was found in Town School D, albeit with different contextual details, and it may be that the provision of many choices actually fosters such unrealistic expectations.

With the introduction of the NCEA, more alternatives have been provided within each of the three "core" compulsory subjects—English, mathematics and science. The school has not yet introduced "alternative" learning pathways, and some staff are concerned that insufficient choice is offered for lower achieving students. A counterbalancing view is provided by the principal, who is concerned that students should not be "streamed", by default, into courses that limit their potential.

Staff generally recognise the benefits of the achievement standards for improving some aspects of student achievement. However, on the whole, they are finding the change stressful. Issues of inter-teacher moderation and of making changes to the exemplar tasks are proving very time-consuming.

CITY SCHOOL B

Overview

City School B is a decile 8 co-educational school with a diverse student population. It is a non-uniform school that attracts students from all over the city who are seeking a liberal environment and wide subject choice, as well as those who live nearby. The students are from a wide range of ethnic backgrounds, and there are a number of exchange and/or fee paying students. City School B also caters for some refugee students who have very little English as yet. Some adult students attend the school, and they are interspersed throughout the senior classes. In the last two years the intake at Year 9 has grown considerably, and different types of students now seem to be choosing to attend. Some staff noted that this has changed the character of the school, and they expect learning needs to also change as these students move into the senior school.

In this school we spoke to the principal and five other staff: the HOFs[9] of mathematics, English, science, technology, and the arts. (The arts HOF teaches music.) The student questionnaire was administered by the Year 11 form teachers, during form time, on a day subsequent to our visit to the school. There are 172 Year 11 students at the school.

Year 11 Subject Organisation

It has been school policy for some years to offer the students at City School B an extremely wide range of choices. The combinations that they can put together are ultimately constrained by the use of six option lines for timetabling, but these are redeveloped each year, to accommodate the maximum number of possible choice combinations. While this caters well for students who remain at the school, there is often a period of roll instability at the start of the year, and this proves challenging when students who have had no input into the choice combinations need to be "slotted in" to the final timetable. This impact is minimised as much as possible by delaying the writing of the final timetable until the first week of the first term. Students work on the development of generic study skills while this process is being completed.

Choices Within Compulsory Subjects

Year 11 students at City School B must study mathematics and either Māori or English. One science option is also compulsory.

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[9] In this school there are heads of faculty, one in each of the seven curriculum areas, rather than heads of department.

Mathematics

Mathematics is compulsory for all students at Year 11. It is offered in two different formats:

- a full achievement standards course is offered on five of the six option lines;
- "Foundation numeracy", which is assessed by a combination of internally assessed achievement standards and unit standards, is offered on two option lines.

English

At City School B it is compulsory for students to study either Māori or English. According to the school's records, 14 students have chosen the Māori option in 2002, and it is timetabled in one option line. (Some of the students in the Māori class may also be studying English.)

Two types of Year 11 English are currently offered:

- "Full" English is offered on all six option lines, and is assessed mainly by achievement standards; one unit standard is also used in this course;
- Foundation English is assessed by a combination of unit standards and the Practical English Certificate Examination; it is offered on one option line in 2002, and is being taken by 22 students.

An ESOL course is offered for students for whom English is a second language. This course is assessed internally and is an option chosen in addition to English. For students with very poor English skills, it may be taken instead of English.

Science

As in most of the case study schools, science is compulsory at Year 11 in City School B. However students have a choice of three subject formats:

- NCEA Science, assessed by achievement standards, is offered on five option lines;
- "Foundation" science, based on the NZASE Certificate in Science course, is offered on one option line;
- Horticulture, assessed by achievement standards, is available on one option line.

Optional Courses

Technology

City School B offers a range of choices in the technology area, but the school is constrained by the availability of resources and cannot offer all the choices that the students would actually like. Courses offered include a range for both practical skills-based and more academic pathways:

- Practical woodwork, assessed by unit standards;
- Automotive, a new Year 11/12 course that is assessed with selected ITO unit standards;

- Food and nutrition, assessed by unit standards for the Practical Certificate in Food and Nutrition;
- Graphics—this is the first year of a National Certificate in Design course and is assessed by unit standards (the course continues at Year 12);
- Design technology—wood/metal, assessed by achievement standards;
- Fabric technology, assessed by achievement standards;
- Food technology, assessed by achievement standards.

Choices in the materials technology area are constrained by limits placed on the pool of available NCEA credits. Although the school offers three choices (wood/metal, fabric and food), students can effectively select only one, because there is only one "pool" of NCEA credits from which to draw.

At the moment, computing courses come under the umbrella of technology in City School B. Choices offered are as follows:

- Computing, offered on two option lines, is internally assessed and is the first year of a three year computer science course;
- Practical computing, a basic course that does not lead to the award of any NCEA credits;
- Text and information management, assessed by achievement standards;
- Creative technology—digital media, assessed by Web Design unit standards.

The Arts

City School B takes pride in the arts options it offers students in the senior secondary school. While only three choices are offered at Year 11, these open up into a wider range of options at Years 12 and 13. At these levels there is a blurring of the lines between some of the technology and arts options, as indicated in Table 4. At Year 11, students can choose between:

- Art, assessed by achievement standards, and offered on two option lines;
- Drama, assessed by achievement standards;
- Music, assessed by achievement standards.

Languages

In addition to Māori, City School B offers French and Japanese.

Social Sciences

In 2002, history is offered on two option lines, and geography on one. While economics is included in the course book, there was insufficient support to run this course in 2002. There is a career development department within the social sciences faculty which offers a Year 11 course in SIPS (senior individual pathways studies), involving each student in constructing their own individual learning programme in consultation with staff and their parents. The course includes a compulsory component of study and work habit management, and an optional component using STAR funded courses, The Open

Polytechnic, or correspondence courses. SIPS offers students considerable choice in taking responsibility for their own school learning and relating it to a career interest.

Physical Education and Health

Physical education is a full option course, assessed by achievement standards. While health is included in the course book, there were insufficient student numbers to run this course in 2002. An internally assessed senior recreation course is also offered.

Accounting

Accounting is offered as an option and is assessed by achievement standards. It is placed within the mathematics faculty.

Subject Choice Across Years 9–13

Table 7 summarises subject links across Years 9–13 in City School B. This table shows how choices at Year 11 relate to what has gone before in the junior school, and the pathways that will potentially open up in the senior secondary school.

Table 7

Subject Choice Structure at City School B in 2002

Curriculum Area	Year 9 (all options)	Year 10 (equivalent of 2 full yr. options)	Year 11 (3 options)	Year 12 (5 options)	Year 13 (5 options)
English and languages	Core English	Core English	**Compulsory*** English or Fnd. English	**Compulsory** English or Snr Prac Eng	**Optional**** English Contemp. Text
	One choice of French Japanese Māori Samoan Extra English	**Optional** French Japanese Māori Samoan ESOL (all full yr. options)	**Optional** French Japanese Māori ESOL	**Optional** French Japanese Māori ESOL Journalism Film/TV Stud. Classical Stud.	French Japanese Māori IELTS Prep. Journalism Classical Stud.
Mathematics	Core Mathematics	Core Mathematics	**Compulsory** Mathematics or Fnd. Num. Accounting	**Optional** Mathematics or App. Maths Accounting	**Optional** Calculus Statistics Accounting
Sciences	Core Science	Core Science **Optional** Horticulture (half yr)	**Compulsory** Science or Fnd. Sci. or Horticulture or Fnd. Hort	**Optional** Biology Chemistry Physics Ag./Hort.	**Optional** Biology Chemistry Physics Ag./Hort.
Technology	All options sampled Wkshop. Craft (Metal) Wkshop. Craft (Wood) Clothing Tech. Food Tech. Graphic Desig.	**Optional** (half year except Graphics) Comp. Graphic Design Tech. Design Tech. (Fabrics) Food Tech. Graphics Text Mgmnt	**Optional** Automotive Computing Prac. Comp. Creative Tech Design Tech. Design Tech. (Fabrics) Design Tech. (food) Food/nutrition Graph Des. (1) Txt Info Mgmt Prac. Woodwk	**Optional** Automotive Comp. Prgm. Comp. Stud. Creative Tech Design Tech. Design Tech. (Fabrics) Hospitality Graph. Des. (2) Txt Info. Mgmt Electronics Prac. Woodwk	**Optional** Creative Tech Comp. Sci. CISCO*** Design Tech. Fashion Design Tech. Graphics Video Prod. for Film/TV
The Arts	Both options sampled Art Music	**Optional** (half year) Art Drama Music	**Optional** Art Drama Music	**Optional** Art hist Drawg/Paintg PA tech. Drama Music Prac. Music Photography	**Optional** Art Hist Painting Sculpture Design (Art) Drama Music Photography
Social Sciences	Core Social Studies	Core Social Studies **Optional** Enterprise Studies (half year)	**Optional** Geography History SIPS**** LAWS****	**Optional** Economics Geography History SIPS Tourism Stud.	**Optional** Economics Geography History SIPS Tourism Stud.
Health and PE	Core PE	Core Health PE **Optional** Sports Studies (half year)	**Optional** PE Senior Recreation	**Optional** PE Sports Performance	**Optional** PE

* Or Māori—students must choose one but may choose both

** Except for foreign fee paying students who must take English at Year 13

*** An international course that leads to an industry qualification

**** Work/future study related courses

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Catering for Student Subject Choice

The six staff members interviewed were quite consistent in their rating of the school's current subject choice practice. Several qualified their responses by saying that they would move these down one level if they took into account fixed constraints such as availability of suitable staff. However, it was clear that all of them perceived an intention to provide as much choice as possible, and one HOF commented that students sometimes complained about being overwhelmed by choice. The person who gave the "fairly well" rating felt that students were not as informed about courses that did not contribute to NCEA as they needed to have been when they made some of their choices for this year.

extremely well	very well	fairly well	not very well	not well at all
1	4	1		

In keeping with the school's overall philosophy of students taking personal responsibility for their own learning, students at City School B have the ultimate choice of their subject mix. All senior students (Years 11, 12, 13, 14 and adult) are provided with a spiral-bound copy of the course information needed to make subject choices at all levels of the senior secondary school. Information at the front of the book draws attention to compulsory courses and to those that have prerequisites. In theory, Year 11 students can select a Year 12 course, but it would need to fit their timetable (it cannot, for example, take the place of a compulsory Year 11 subject) and they would need to have met any necessary prerequisites. Information about the implications of specific types of choices is prominent in the front of the book, with explicit reference to entry requirements for tertiary courses, and a reminder about the school's career advice services. Information provided about each subject includes details of the method(s) of assessment, and also the name of the staff member to contact to discuss choices. The HOFs think that, on the whole, the students are making appropriate choices, although one noted that this comes at a considerable cost of staff time, as each student receives individual counselling during the choice process.

Resource and timetabling limitations ultimately act as constraints on student subject choice. The principal notes that maintaining less popular choices with smaller class numbers (for example, in languages) results in bigger classes in core subjects. This was a common theme in the case study schools. As it is, City School B funds five additional teachers from its own resources, and fees paid by international students also help. Specialist equipment and rooms also act to constrain student choice. The principal notes that "everyone wants to do computer courses" and these are very expensive to equip.

Meeting Student Needs

In each of the compulsory subjects, staff advise students about the most suitable alternative, but this recommendation is not binding. Students are free to choose between options according to their own perceptions of their ability, while staff base their recommendations on Year 9 and 10 results and/or informal judgments. This shared responsibility is seen as mostly successful in placing students in the most appropriate learning environment for their needs. Some students who come to realise that they have not chosen appropriately may be able to swap where alternatives are on the same timetable line. One HOF commented that ESOL students may try to attempt the NCEA course before they have the necessary language competence, and some adult refugees who have already taken all the more supportive courses in this subject have "run out of options". This makes it hard for the school to meet their needs fully. Another HOF also saw difficulties with language as a reason for advising students to opt for the "alternative" course before attempting the full NCEA Level One course during Year 12.

Looking ahead, the principal envisages a senior school run more along the lines of a "university model" in which subjects are differentiated by levels but not by year groups. Within such a model students could be studying at any level in any year, according to their own particular subject choice profile and personal study goals. The school is already discussing more flexible use of time, and last year began experimenting with blocking two hours together on one timetable line. So far this appears to suit some subject areas, such as technology, well. While most staff are supportive of this, some have yet to be convinced that it will work for their subject area.

Keeping subjects relevant to today's students is a big challenge, but the principal suggests that perhaps the shift in City School B will be more in the *way* teaching is carried out, rather than in the content of what is taught. She sees NCEA, at least in principle, as opening up possibilities for more student-centred learning, with more emphasis on skills such as researching and problem solving.

Views on the NCEA and Student Achievement

The principal is "totally supportive" of the introduction of NCEA, and says that City School B has "been waiting for it". With an established track record of innovation in student subject choice, the school is now able to point to the recognition of achievement for qualifications in many of the less traditional courses that the school was already offering. The principal hopes that this will break down the hierarchy of subjects, so that existing courses such as drama, practical music and practical woodwork are valued more. However, she is somewhat concerned about students who still need low-key, undemanding courses (for example, some refugee students with very little English and no track record of formal learning in their unsettled lives to date.) Another concern is that HOFs are beginning to ask for prerequisites for courses with higher stakes qualifications attached, and this could act to constrain student choice in a manner that is against the school's overall philosophy.

As in other schools, the perception of "cabbage" subjects appears to be breaking down, freeing students to make more realistic choices of alternatives matched to their potential to achieve. Reflecting on the widening choices, one HOF noted that students need to think very carefully about Year 11 combinations, so that they do not inadvertently miss out on prerequisites for Years 12 and 13. Thus subject choice at Year 11 now requires students to think about their academic pathway right through the senior school. Another noted that the very wide choice in Years 9 and 10 can also create subject choice constraints, if students do not have the background knowledge and skills that are assumed in the structuring of the Level One achievement standards.

Like their counterparts in the other case study schools, staff at City School B are looking ahead to the choices that students will need to make in Year 12. One noted that in the past, a 50 percent pass in School Certificate was sufficient to move into Year 12, but "it's not like that now". The teachers in this department have previously tried to provide some Year 12 unit standards for students who were essentially repeating Year 11, but now a wider network of combinations is possible. At the time of their first interviews, the teachers in the department were still talking about how they will manage this added complexity.

Some HOFs noted that achievement standards provide much more focused expectations of achievement. One commented that after several practice runs, students are beginning to discern the expectations for excellence, deepening their understanding of the learning challenges in the subject. At the same time teachers can better discern who has real ability, whereas in the past hard-working students could mask a lack of deeper level skills with sheer effort. Another HOF noted that it is ironic that the achievement standards have been accused of "dumbing down" the curriculum, whereas they actually deepen the level required in some of the skills that are assessed.

Mixed feelings were expressed about the usefulness of the subject-specific exemplars, available on the Internet, that are intended to model assessment practice for teachers. One HOF commented on slow download times and expressed a wish for printed material. However, another noted that exemplars are perhaps too easy to access. Many of the school's students are computer literate and have downloaded exemplars for their own use. Because of this, any downloaded exemplars needed considerable modification before use for assessment within the school.

Students on Subject Choice

Of a Year 11 cohort of 172, 116 students completed the questionnaire—a 67 percent response.

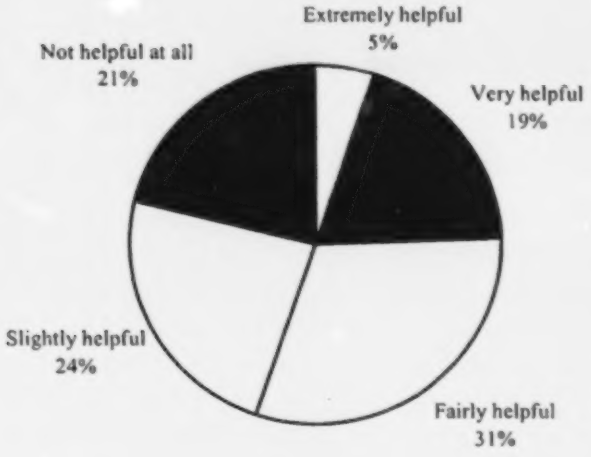
Twenty-four percent of the students who completed the questionnaire found the school helpful or extremely helpful as they made their subject choices. However, just under half the students found the school only slightly helpful or not helpful at all.

Sixty-seven percent of students appeared to be happy with the choices available to them, because they did not indicate that they had been unable to take a subject they wanted. Of the remaining students, 12 percent gave one reason for not being able to take a subject, 18 percent gave two reasons, and 3 percent gave three or more reasons. There is a "catch 22" here. Despite the wide choices presented in this school, actual programmes of study are constrained in terms of the combinations that can be made to "work" within the timetable structure. For the students, the limitations placed on their *apparent* choices may be a source of disaffection with school support for subject choice. Those students who did indicate that they could not select all their preferred choices gave the following reasons:

- being constrained by timetable clashes (15 responses);
- being constrained by student numbers or teacher availability (8 responses);
- needing to "prioritise" among the subjects they wanted to take (7 responses).

Figure 2

School B Student Perceptions of School Help in Subject Choice



Only a small number of students gave reasons such as "the subject is not taught at our school" (4 responses), reflecting the wide variety of subject choices available at the school.

Other Subjects Seen as Desirable

Half of the students made one or more suggestions of other subject areas in which they would like classes to be offered. Perhaps reflecting the school's aim to be seen as strong in the arts, suggestions in this area were the most common. There is an interesting potential parallel with City School A, where other languages topped the wish list, despite that school offering the most language choices already. (It should be noted, however, that the arts also topped the students' wish lists in City School C and Town School E, where these subjects were not so emphasised.) Student suggestions fell within the following broad groups:

- arts subjects (20 students);
- vocational subjects (15 students);
- languages (11 students);
- physical education or health subjects (8 students);
- social science based subjects (8 students);
- non-IT technology subjects (7 students);
- life skills or recreation-craft related subjects (6 students);
- information communication technology subjects (3 students).

By far the most popular reason given for wanting these other subjects was "personal enjoyment or interest" (33 students). The next most popular reasons were "future career" (10 students) and "I'm good at it or have had previous experience in it"(9 students).

Summary

City School B is an "alternative" school that makes considerable effort to provide an "alternative" suite of subject choices. For this school, the NCEA development has provided a means of offering credits towards one unified qualification for students undertaking a very wide range of courses. The academic/vocational divide appears to be breaking down in the manner advocated at the outset of the NQF development. However, the school still makes strong provision for academic students, and staff expend considerable energy counselling students to make choices that do not constrain their later options.

Changes within the technology curriculum area are leading the innovative subject development in this school—a trend that is also evident in Town School D. These two schools offer more choice than the other four, and make more explicit provision for students with "alternative" learning needs. (While Town School E also has a focus on NQF initiated innovation, changes there have taken place within traditional subjects, rather than via the introduction of new types of subjects.)

The students in City School B appear to want even more choice than they already have. It may be that some opted for this school because of the wide range of choices in the first instance. When confronted with the timetable constraints that inevitably apply in any school, some of them appear to become frustrated. It is clearly difficult for schools to balance potential choice, student expectations, and unavoidable constraints.

Like their counterparts in other schools, the staff can see many positives for student learning in the NCEA development. Many of them have had prior experience of standards-based assessment. At the time they were interviewed, they appeared to be less concerned about workload issues than staff in some other schools.

CITY SCHOOL C

Overview

City School C is a decile 2 co-educational school with a diverse student population. It is suburban rather than inner city, and students attend from a range of surrounding areas, from upmarket new housing subdivisions to long-established state housing areas. The school has a significant number of students of Māori and/or Pacific Islands descent. After a period of roll decline, it has recently again become a "school of choice" in its area, and there has been a noticeable increase in roll numbers at Year 9 this year.

In this school we spoke to the principal and five other staff: the HODs of mathematics, English, science, and technology, and the visual arts HOD as a representative of the arts curriculum area. The student questionnaire was administered by the Year 11 form teachers, during form time, on a day of our visit to the school. There are 160 Year 11 students.

Year 11 Subject Organisation

Students at City School C are offered a wide range of choices. The combinations that they can put together are somewhat constrained by the use of five option lines for timetabling. The combination of subjects on each option line has changed from year to year in an attempt to accommodate the maximum number of combinations requested by the student cohort. While this is seen as a strength, one HOD suggested that it can also act as a constraint, in that Year 10 students are first requested to make Year 11 course selections in term 3, at a stage when they may not have completed a full cycle of the options available in some choice courses. Choices are described in a course booklet, organised by subject areas, that covers all levels of the school. The booklet does not include a flow chart that shows how senior school options build on Year 9 and 10 choices.

Choices Within Compulsory Subjects

Mathematics and English are compulsory at City School C, but science is not.

Mathematics

Mathematics is offered in three different alternatives, to accommodate a range of abilities:

- a full achievement standards course, offered on three option lines;
- a course assessed by unit standards, offered on two option lines;
- a "practical mathematics" course assessed by lower level unit standards, with the aim of helping students achieve the minimum eight numeracy credits that they require for Level One NCEA.

One retrospective change has been made because some of last year's Year 11 students have now entered Year 12 without the mandatory eight numeracy credits that they need to work towards an NCEA Level One certificate. To accommodate their need, the school has created a one-off small mathematics class for these students. It runs for just one period a week during transition course time. The course offers two internally assessed achievement standards for students who are not doing any other maths at Year 12. (Some of these students have a few numeracy credits already, but need to "top up" to the minimum level of eight.) Once students have gained their eight credits, they return to their transition class.

English

English is also compulsory, and two types of Year 11 English are currently offered:

- a full achievement standards course, offered on four option lines;
- a course assessed by unit standards and the Practical English Certificate Examination, offered on two option lines.

An ESOL course is offered for students for whom English is a second language. This course is assessed by unit standards and is an option to the other English courses.

Optional Courses

Science

In contrast to the other case study schools, science is not compulsory in City School C, nor is it offered in more than one subject format this year. While the NZASE Certificate in Science course was available for selection, the course did not run because too few students chose it. Science is offered on three timetable lines and is assessed by achievement standards. In previous years the school has offered horticulture at Year 11, but this was not offered for 2002. It has, however, been reintroduced at Year 10,[10] so will again become available as a subject choice at Year 11 in the future. Biology was offered at Year 11 level in 2002, but it was not selected by enough students to form a class.

Technology

The school offers four technology choices at present:

- Materials technology (wood);
- Materials technology (metal);
- Graphics;
- Home economics.

All these courses are assessed by achievement standards. Graphics and home economics are popular choices that run on two option lines.

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[10] It was offered at both Year 9 and 10, but there were not enough students to make a viable class at Year 9 level.

The Arts

At present City School C offers Year 11 courses in two subjects, both fully assessed by achievement standards. These are:

- Visual art;
- Music.

This year the school has introduced a performing arts course at Year 9 and three members of staff are working together to implement this. It is currently intended that there will be a Year 11 course offered in this subject in two years' time.

Languages

City School C offers French, Japanese, Māori, and Samoan.

Social Sciences

A range of choices is available in this curriculum area. They include:

- Economics;
- Geography;
- History;
- Humanities.

Economics, geography and history are fully assessed by achievement standards. The humanities course has been introduced for the first time in 2002. It is a course for lower-achieving students, combining elements of social studies, history, economics and geography. The course can potentially contribute 16 credits towards a Level One NCEA award. Teachers at City School C have been trying to get students interested in such a course for some time, and it seems that the ability to gain NCEA credits has provided the impetus to increase student interest in the idea.

Physical Education and Health

Physical education is a popular course, run on two timetable option lines. It is assessed by a combination of achievement and unit standards. Health is not offered at Year 11 at City School C.

Commerce

City School C offers:

- Accounting (two option lines), assessed by achievement standards;
- Text and information management (TIM), a popular course (three option lines) that is assessed by achievement standards.

Transition

This course for the less able is offered on two option lines, and is assessed by National Certificate in Employment Skills unit standards.

Subject Choice Across Years 9–13

Table 8 summarises subject links across Years 9–13. This table shows how choices at Year 11 relate to what has gone before in the junior school, and the pathways that will potentially open up in the senior secondary school.

Table 8

Subject Choice Structure at City School C in 2002

Curriculum Area	Year 9 (2 options – half year)	Year 10 (3 options – full year)	Year 11 (3 options)	Year 12 (5 options)	Year 13 (5 options)
English and languages	**Compulsory** English	**Compulsory** English	**Compulsory** English or English NQF	**Compulsory** English or Eng. NQF and/or Media Stud.	**Optional** English English NQF English (Int)
	Optional Extra Eng. French Japanese Māori Samoan	**Optional** Extra Eng. French Japanese Māori Samoan	**Optional** French Japanese Māori Samoan	**Optional** ESL NQF French Japanese Māori Samoan Classical Stud.	**Optional** ESL NQF French Japanese Māori Chinese Classical Stud.
Mathematics	**Compulsory** Mathematics	**Compulsory** Mathematics	**Compulsory** Mathematics or Maths NQF or Maths prac.	**Optional** Mathematics Maths NQF	**Optional** Calculus Statistics
Sciences	**Compulsory** Science	**Compulsory** Science	**Optional** Science	**Optional** Biology Chemistry Physics	**Optional** Biology Chemistry Physics
	Optional (2003) Horticulture	**Optional** Horticulture			
Technology	All options sampled Electronics Food Tech. Design Tech. (Textiles) Design Tech. (Wood/Metal)	**Optional** Design Tech. (Textiles) Design Tech. (Wood/Metal) Food Tech/ Nutrition	**Optional** Home Ec. Materials Tech. (Wood) Materials Tech. (Metal)	**Optional** Comp. Stud. Design Tech Engineering Materials Tech. (Textiles)	**Optional** Fashion and Design Furniture Stud.
	Optional Graphics TIM	Graphics TIM	Graphics TIM	Graphics TIM	Computer Studies TIM
The Arts	**Optional** Art Music Performing Arts	**Optional** Art Music	**Optional** Art Music	**Optional** Art Music Drama	**Optional** Art Design Painting Photography Printmaking Music Performing Arts
Social Sciences	**Compulsory** Social Studies	**Compulsory** Social Studies	**Optional** Economics Geography History Humanities	**Optional** Economics Geography History	**Optional** Economics Geography History
Health and PE	**Compulsory** Health Ed. PE	**Compulsory** Health PE	**Optional** PE	**Optional** PE Sports Ed	**Optional** PE Sports mgmt.
Vocational/ Other	**Optional**	**Optional**	**Optional** Accounting Transition	**Optional** Accounting Comp. Prac Transition Hospitality	**Optional** Accounting Comp. Prac. Tourism

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Catering for Student Subject Choice

The interviewed staff rated the school's current subject choice practices at different points on the scale provided, depending on the emphasis they placed on specific aspects of this process.

extremely well	very well	fairly well	not very well	not well at all
1		3	1	

One person declined to make a rating because they were new to the school.

Several staff registered their reservations about the heavy reliance on student self-selection for all except the compulsory courses. They said that while good written information is provided, the students need more individual guidance from Year 9, because some are making choices at that stage that constrain them later on. One HOD felt that some students and their parents did not yet understand the implications of the move to NCEA—in particular, that "success" could now be officially recognised for every subject offered. In previous years a subject choice "expo" had been provided. This did not happen last year, but will definitely be offered in 2003. Several staff were of the opinion that the Year 11 group at City School C was smaller than at other city schools, and that this constrains combinations of choices that can be offered. (In fact, Year 11 students numbers at four of the six schools, including this one, were very similar. Town School F was smaller, and Town School E was larger—in both cases by approximately one class, or 20 students—but both these schools offered a very similar number of alternatives to City School C.)

Meeting Student Needs

In the compulsory subjects, staff direct students into the most suitable option. They base their judgments on achievement records of progress in Years 9 and 10, including PATs, and testing at end of Year 9, and mid and end of Year 10. This process is seen as mostly successful in placing students in the most appropriate learning environment for their needs. The other HODs were confident that the students who had selected their subjects had made appropriate choices, and that these students could gain benefits from the classes they offered. One HOD reported counselling a student to change options before the year was too far underway, but several HODs expressed the reservation that the potential for this type of movement was limited, because popular classes were full.

The principal is concerned that the school does not currently offer sufficient subject choice for non-academic students. However, she cited the reintroduction of horticulture at Year 10 as evidence of staff willingness to think ahead and to try new subject choice options with NCEA in mind. She is also excited by the prospect, "two years down the track", of an "exciting and dynamic" Year 11 performing arts course. She believes it will be attractive to Year 11 students because they will be able to gain credits for a national qualification. When asked about constraints on providing for wider student subject choice, the principal responded that money and resourcing—especially, but not only, staffing—are seen as the major constraints. She also believes that both factors will constrain any innovative redevelopment of existing subjects.

Views on the NCEA and Student Achievement

The principal believes that NCEA has the potential to deliver exciting innovations in student subject choice at City School C, and she sees it as a positive change for the students themselves. However, for this first year of implementation, the school is mainly leaving subject options as they have been, while they see how the new initiative takes shape in practice. There is an explicit intention to revisit these later in the year.

The principal suggests that student and parent non-acceptance of the value of non-academic subjects was the main impediment to their introduction in the past, and notes that it is difficult to attract a wide range of parents to information meetings at the school. She sees NCEA as an opportunity to change perceptions of the worth of subjects, because all courses at Year 11 can now contribute towards a national qualification. However, such acceptance is dependent on improved understanding of the new qualification. The principal believes that insufficient attention has been given to this aspect of implementation. The consequence of this is high levels of anxiety amongst those current Year 11 students who are most aware of the nature of the change to the assessment regime. The principal is unsure of how the NCEA will impact on the school's international fee paying students, and is concerned about this.

All of the HODs share the principal's perception that students and their parents are not yet fully conversant with the changes accompanying the implementation of the NCEA. Some expressed concern that a perception of "cabbage" classes lingers, especially for the alternative choices for compulsory subjects. Some students equate lack of success with not having worked sufficiently hard, whereas teachers may perceive that unsuccessful students lack key knowledge or skills that can enable success. Some staff are looking ahead to the choices these students will need to make in Year 12. They envisage new possibilities—for example, where failing students would once have had to repeat Year 11 in total, now they may be able to move from unit standards courses to similar but more challenging achievement standards courses at Level One. Conversely, it may be difficult to support fully those students who are capable of reaching excellence level, and who need to be given more individual time and attention.

Most HODs felt that the actual subject structure was unlikely to change a great deal—one said that "we offer a huge range of subjects here anyway". However, the HODs of several optional subjects felt that the implementation of NCEA was likely to reduce the marginalised position of their subjects on the timetable, and was making it easier for them to structure their subject choices in ways that were more compatible with new curriculum intentions.

One HOD expressed a strong reservation that the achievement standards would "cap" the level of work achieved by the best students, narrowing the overall achievement range, and contributing to "mediocrity" within the subject. However, another HOD noted that "excellence" relates to a greater proportion of the overall assessment than was the case in School Certificate, because it is distributed across all the standards for the subject. In his opinion, the excellence level is set at a higher standard than previously. Other HODs said that a wider range of skills were now able to be assessed and that this would demand more of students than had previous assessment practice. However, one worried that students would panic when they saw excellence level questions, with the consequence that they would then not achieve in any questions in the examination. One HOD expressed concerns about the time demands of the very detailed practical assessment that would be required in his subject.

The principal believes that the staff will be willing to take more risks in the area of restructuring courses as the NCEA implementation issues are worked through, but she is concerned about the impact on staff workloads. In particular, she worries that HODs are becoming very stressed. She is also concerned about some less obvious costs of implementation. For example, the science staff wanted to run a simultaneous practical assessment for all the Year 11 science students who are completing achievement standard 1.1 in this subject. This necessitated paying for relief cover for each of them for several hours. Software for record keeping, as recommended by NZQA, has been expensive to purchase, and staff training in its use has been an additional cost.

The HODs expressed mixed feelings about the usefulness of the subject-specific exemplars. One HOD commented that slow download times and lack of ready staff access to computers generally were frustrating (a challenge also noted by the principal). As in other schools, those staff who had had the greatest previous experience of unit standards were the least concerned about this aspect of managing the change.

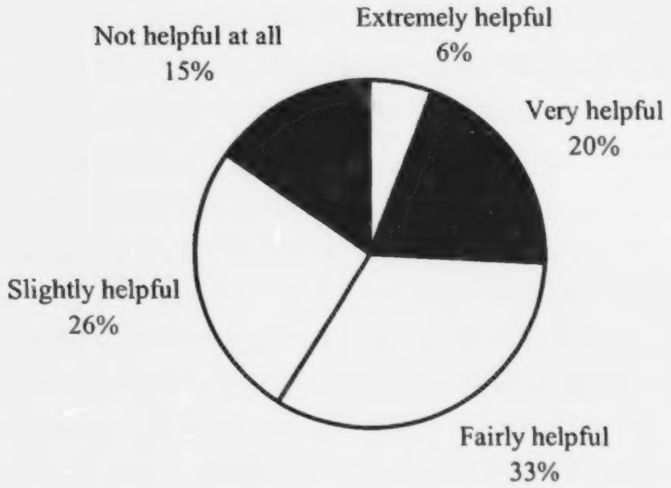
Students on Subject Choice

There were 90 responses returned from a total Year 11 cohort of 160 students, a response rate of 56 percent.

Twenty-six percent of the students found the school very or extremely helpful. In common with Schools A, B, and D, close to 40 percent found the school only slightly helpful, or not helpful at all.

Figure 3

School C Student Perceptions of School Help in Subject Choice



Thirty-seven percent of students indicated that they had not been able to take particular subjects they had wanted. Some gave one reason for not being able to take desired subjects (N = 19), but some gave two reasons (N = 12), and a very few gave three (N = 2). The most common reason given was timetable clashes (7 responses), closely followed by two other reasons:

- being advised against it by parents or caregivers (5 responses);
- self-perception of lack of ability in subject (4 responses).

Only two students responded that "the subject is not taught in our school", although 52 percent made suggestions for other subjects they would like to see taught—a very similar number of responses to those made in other schools.

Other Subjects Seen as Desirable

The other subject areas in which the students would like classes to be offered are:

- arts subjects (12 students);
- vocational subjects (9 students);
- languages (9 students);
- physical education or health subjects (9 students);
- non-IT technology subjects (8 students);
- social science based subjects (6 students);
- information communication technology subjects (3 students);
- life skills or recreation-craft related subjects (1 student).

By far the most popular reason given for wanting these other subjects was "personal enjoyment or interest". The next most popular reasons were "future career", "I'm good at it or have had previous experience in it", "for the challenge and/or skills", and "usefulness for (non-career) adult life".

Summary

City School C, like City School A, has students from a diverse range of cultural backgrounds. Both schools offer more language options than any of the other four. The relatively traditional mix of subject choices offered is another point of similarity between these two schools. In this school, the conservative mix of options was directly linked to conservative parental expectations. Staff at City School C are aware of the challenges they face in helping parents of some of their students understand the full import of the NCEA changes. On a more innovative note, the NCEA initiative has provided the impetus for staff in the social science curriculum area to create a new subject that combines geography and history as an option for less-academic students, something they have wanted to do for some time.

This is the only school where science is not compulsory at Year 11. It may be that the restricted availability of science is affecting its popularity. Alternative choice options in the sciences were not selected by enough students to create a viable class in 2002. This is the converse of the pattern where the more options are offered, the more appear to be wanted (as in language choices at City School A.)

As in other schools, staff can see benefits of the NCEA reforms for student learning, but the workload pressures generated by the NCEA implementation appear to be outweighing staff perceptions of positives. In this low decile school, costs for student materials and access to staff computers for record keeping and for downloading exemplars were particular concerns.

TOWN SCHOOL D

Overview

Town School D is a decile 5 co-educational school set in a medium sized town that services the surrounding farming community. Students attend from both town and country areas. One staff member expressed the view that the school "has to be all things to all students"—it is the only secondary school in the town. Students span the full ability range, and the school is proud of its innovative approach to catering for the needs of the less academic, as well as offering a full range of conventional school subjects.

In this school we spoke to the principal and six other staff: the HODs of mathematics, English, and science, the assistant principal in her role as HOD technology, and the visual art HOD as a representative of the arts curriculum area. The sixth staff member was the Year 11 dean, who has the overall responsibility for advising students on their subject choices, and for making adjustments to their programmes where necessary. The student questionnaire was completed during our visit to the school. There are 171 students in the Year 11 cohort.

Year 11 Subject Organisation

Students at Town School D are offered a very wide range of choices. The combinations that they can put together are not initially constrained by timetabling procedures, because the school rebuilds its timetable each year. Student choices are sorted into seven timetable lines initially. Six of these lines are then fitted into the five period day, with four hours per subject per week. The seventh line consists of courses that cross the regular timetable, mostly associated with STAR and Gateway options. Once the timetable has been finalised, it is not easy for students to make subject choice changes, but this is made clear to them at the outset of the Year 10 decision making pathway.

Choices Within Compulsory Subjects

Mathematics, English and science are all compulsory at Town School D. All three are offered in several different formats, to accommodate a range of abilities.

Mathematics

There are three alternative courses offered in Year 11 mathematics:

- a full achievement standards course (called NCEA Level One Maths);
- a course that is assessed by a mixture of achievement standards and unit standards (called Basic Maths) that is fully internally assessed and may lead either to the full NCEA Level One Maths course in Year 12, or to a Year 12 "Maths with Applications" course—students successfully completing this course will have

gained the eight numeracy credits needed to be awarded a full Level One NCEA qualification;

- an "introductory mathematics" course, which combines some assessment from the previous MAP (Maths Applied Certificate) with unit standards from the Certificate of Employment Skills—this course can also help students achieve the minimum eight numeracy credits that they require for level one NCEA.

English

Two types of Year 11 English are currently offered:

- a full achievement standards course;
- a course that is assessed by a combination of non-Framework assessments, three unit standards and one internally assessed achievement standard. One of the unit standards is at Level Two, but the HOD is confident that students can manage to achieve the necessary skills. The emphasis of this course is on achieving the eight compulsory literacy credits.

Science

Students have a choice of four options in this subject, and they may opt to take two of the available subjects. Three of these are fully assessed with achievement standards:

- Science (with standards from all four contextual strands of the curriculum);
- Biology—a new choice at Year 11;
- Horticulture—this is not offered in the junior school so is a new choice at Year 11;
- NZASE Certificate in Science—available for the lowest achieving 10–15 percent of the Year 11 cohort. The school does not yet offer the unit standards that have just become available for this course, but is considering doing so in the future.

Optional Courses

Technology

The subject information provided for students notes that "technology has undergone lots of changes for 2002". The three choices offered in 2002 are:

- Hard materials/production and process;
- Biotechnology/food/soft materials;
- Structures and mechanisms/electronics/information.

For those students who have not demonstrated achievement in technology at Years 9 and 10, an alternative technicraft course is offered. A "practical computing" course is offered on a similar non-credit basis. In addition:

- Graphics is offered as a full NCEA option;
- A food technology course with a predominantly food and nutrition focus is assessed by a full suite of achievement standards.

The Arts

Town School D offers both traditional and newer options in this curriculum area, including:

- Art;
- Drama;
- Music.

All three of these subjects are assessed by achievement standards.

- Performance Music (assessed by a combination of unit and achievement standards).

Languages

Town School D offers French, Japanese, and Māori.

Social Sciences

Geography, history, and economics are all offered as full NCEA courses, assessed by achievement standards.

Physical Education/Health

This course is assessed with a more limited range of achievement standards (two in physical education and one in health), providing students who take it with the opportunity to gain 13 credits in all.

Accounting is offered as a full achievement standards course, as is *Text and Information Management (TIM).*

Transition Courses

Town School D offers a "learning in career skills" (LinCS) course at Year 11 that emphasises the development of skills for the workplace and independent living. Achievement is assessed using unit standards.

Town School D is also a "Gateway" school, and students can opt for school/workplace experiences as one option choice. Gateways courses usually gain credits towards a national award.

Subject Choice Across Years 9–13

Table 9 summarises subject links across Years 9–13 in Town School D. This table shows how choices at Year 11 relate to what has gone before in the junior school, and the pathways that will potentially open up in the senior secondary school.

Catering for Student Subject Choice

The school works hard to ensure that students and their parents are well informed about subject choices. Both staff and students are provided with detailed documentation to guide the selection process, including a time line that specifies when each stage of decisionmaking should be completed. Students are given time to make an initial selection, to obtain guidance about this, and to have their choice checked by the dean, before final subject selection is confirmed. The tenor of the extensive written documentation makes it clear that these are serious choices, not to be made lightly, and direct reference to career information/choice implications is made. The timetable is completed in December, when the subject combinations requested by the students have been settled as far as possible.

Ratings given by the interviewed staff generally supported their collective belief that the school works really hard to cater for student subject choice:

extremely well	very well	fairly well	not very well	not well at all
2	3	2		

The two staff members who selected the "fairly well" rating both saw the wide range of vocational choices as a two-edged sword. They perceived that the effort put into the students who would benefit from such courses, while desirable for the students who needed this, could come at a cost to those students who needed extension to challenge them to their full abilities. One of these two also mentioned a student culture of "going with the flow", and suggested that some potentially able students were satisfied with less than their potential achievement and downplayed their career aspirations accordingly.

Staff described the considerable efforts made by the school to communicate with parents, and to explain the implications of changes to assessment for qualifications. They perceived that some parents and students were not yet fully aware of the potential to achieve qualifications recognition from the wide range of vocational courses, but this was slowly changing. The staff believed that they made strenuous and co-ordinated efforts to ensure that students made informed choices, with suitable support and guidance.

Meeting Student Needs

In all three compulsory courses, staff direct students into the most suitable alternative, based on achievement records in Years 9 and 10. The end of Year 9 and 10 examinations are now being structured to give students experience of standards-based assessment. In at least one compulsory subject area, particular attention is paid to achievement in those aspects that will be externally assessed at Year 11. On the basis of the credits they gain at the end of Year 10, students who appear unlikely to cope with the pressure of external examinations are encouraged to take the fully internally assessed course in that subject area.

Table 9

Subject Choice Structure at Town School D in 2002

Curriculum Area	Year 9 (all options sampled)	Year 10 (2 options – 6 modules each)	Year 11 (3 options)	Year 12 (5 options)	Year 13 (5 options)
English and languages	English – 8 modules 4 modules of: French Japanese Māori or Skills Recovery	**Compulsory**** English **Optional** French Japanese Māori	**Compulsory** English or Alt. English **Optional** French Japanese Māori	**Compulsory** English or Applied Eng. **Optional** Media Studies* French Japanese Māori	**Optional** English Classical Stud. French Japanese Māori
Mathematics	Mathematics – 8 modules	**Compulsory** Mathematics	**Compulsory** NCEA Maths or Basic Maths or Intro. Maths	**Optional** Mathematics Maths Appl. 2 Computing	**Optional** Calculus Statistics Computing
Sciences	Science – 6 modules	**Compulsory** Science **Optional** Horticulture	**Compulsory** Science or Cert. Science or Biology or Horticulture	**Optional** Anatomy/Physio Biology Chemistry Dairying Horticulture Physics Cert in Science Electronics	**Optional** Biology Chemistry Dairying Ag/Hort Physics Science
Technology	Technology – 8 modules	**Compulsory** Technology – 3 modules **Optional** Combined Hard Materials Tech./ Fabric Tech./ Food Tech. Graphics	**Optional** BioTech/Food/ Soft Materials HardM/Product/ Process Structures/ Mechanisms/ Electronics Graphics	**Optional** Design Tech Fabrics/Design Food Tech Graphics	**Optional** Design Tech Food Sci. Tech. Graphics
The Arts	1 module each: Art Music	**Optional** Art Drama Music	**Optional** Art Drama Music Perform. Music	**Optional** Art Drama (L1) Music Photography	**Optional** Art double Drama (L1) Music
Social Sciences	Social Studies 6 modules Māori Studies – 1 module	**Compulsory** Social Studies **Optional** Economics	**Optional** Economics Geography History	**Optional** Economics Geography History	**Optional** Economics Geography History
Health and PE	PE – 4 modules	**Compulsory** PE – 4 modules	**Optional** PE/Health	**Optional** PE Sportfit	**Optional** PE
Vocational/ Other	Social Education – 1 module	**Compulsory** Social Ed. – 1 module **Optional** TIM	**Optional** Accounting Food/Nutrition Gateways LINCS Prac. Comptng. Technicraft TIM	**Optional** Accounting Food/Nutrition Gateways LINCS Nannying Tourism Stud. TIM Emply. Skills Chef Training	**Optional** Accounting Gateways LINCS Nannying Tourism Stud. TIM Emply. Skills

* Media studies can be an alternative to English at Year 12.

** Year 10 English, maths, science, social studies are all 7 modules.

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The placement process is seen as successful in directing students to the most appropriate learning environment for their needs, but parents' wishes may over-ride the school's judgment in some cases. Staff are very mindful that the alternatives chosen at this stage may constrain later choice. Where possible, students who have the ability to do so are advised to keep their options open by taking full NCEA courses. One alternative course has recently been changed so that the mix of topics/skills offered is closer to the full NCEA course than was previously the case. The HOD hopes that this change will mean that students who complete the alternative course are not as constrained in their future choices as they might once have been.

The principal and several of the HODs reflected on the challenge of maintaining smaller classes in some of the more academic subjects and in Māori. (The principal noted that there are often low class numbers in Māori, but "it will always be taught in this school".) They are very aware that other teachers pay the price, because they need to cope with large class sizes in compensation. They see no easy answers to this challenge at present.

The HODs were confident that the students who selected their subjects had made appropriate choices and that these students could gain benefits from the classes they offered. However, they expressed a range of views about perceptions amongst the students and the wider community of the school about the change to NCEA qualifications. One worried that the new qualification structure might "exclude" rather than "include" as intended, if employers still make judgments about achievement based on "still just looking at the numbers". Another worried that the change was creating a "polarisation" between students who aspire to achieve academically and those who do not. By contrast, two HODs were more positive about this aspect, suggesting that the change was breaking down the distinction the students themselves drew between the academically able and the "cabbages".

Some students are now staying longer at Town School D than they might have done in the past. This has caused a considerable growth in the numbers of students doing alternative courses. While the school caters well for these students, the principal is aware of the resourcing tension that is created. He tries to maintain a balance between offering courses that will help the lower ability students to achieve, and offering sufficiently stimulating courses to prevent "flight" of able students to boarding and/or private schools in larger urban centres. Currently Year 9, 10, and 11`students have a Personal Strategic Plan, developed in partnership with their parents and the school so that goals and achievement are tied together. As part of this process, barriers between levels in the senior secondary school are breaking down, so that students can now do a combination that includes subjects at Years 11, 12 and/or 13 as appropriate. Trends in this direction will be monitored as the research continues over the next two years.

Looking ahead, the principal anticipates a suite of inter-related changes as the school confronts Year 12 subject choice procedures for next year. Staff have already begun preparing for this by checking Year 12 options carefully, and it is anticipated that the selection process will involve much more work than in the past. Since the staff already work very hard to counsel students to make wise choices, this will add to their workloads. In this school, deans have overall "quality control" of the choice process for the students at their year level, so the changes will be particularly taxing for them.

Views on the NCEA and Student Achievement

The principal endorses the manner in which the introduction of NCEA has broken down "hard" divisions between types of option choices. He is looking forward to the abolition of sixth form certificate, so that similar changes can be affected at Year 12, and a better balance of internal and external assessments can be achieved at that level. However, he does not support the idea of students being subjected to external examinations for three years running. His preference would be to see Level One removed in time.

The HODs at Town School D are already looking ahead to the choices the Year 11 students will need to make in Year 12. They recognise that they will need to address completely new types of questions, for which they do not yet have answers. One HOD reflected on the implications of having a much more detailed profile of each student's areas of achievement and non-achievement, in contrast to the more blanket judgment provided by a one-mark examination result. This HOD foresees possibilities for differentiating students' Year 12 course combinations, so that they can revisit areas of non-achievement and bypass areas where they have already demonstrated competence. For now, the potential scope of the analysis needed to do this is only a "mental picture". However, while there is uncertainty now, the HOD could foresee a time when the likely patterns of achievement will become clearer as student results from NCEA assessments become available.

Perceptions about changes that NCEA might make to the *types* of skills and abilities assessed differed. Some HODs felt that the mix of skills in their subject would remain essentially the same, others thought that these were changing. A number of the subject specific comments made correlated with similar comments made by HODs from the other case study schools. Such common subject-related themes are discussed more fully in Section Five. Comments about the *levels* of skills assessed tended to the view that a more explicit focus on assessing the skills aspects of curriculum will ensure students need to work harder to achieve success. Two HODs felt that the skill level would not change, but rather would just be "identified in a different way".

While they are generally supportive of the potential of NCEA in terms of opening up student subject choice, the HODs are more equivocal about a range of other issues related to implementation. Factors mentioned during the interviews included:

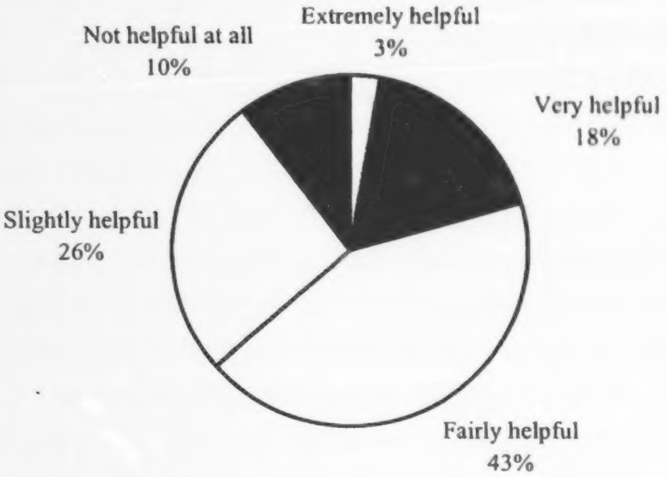
- computer access and download time to get exemplar material;
- higher printing costs with all the paper work needed by students;
- the time needed for much more detailed record keeping;
- the possibility that the current high level of NZQA support will fall away after a time;
- the calibre of staff who are recruited to replace those who leave;
- the seeming undervaluing of staff that was reflected in official responses to workload issues.

Students on Subject Choice

There were 113 responses returned from a total Year 11 cohort of 171 students, a 66 percent response rate. One HOD wondered if the wide range of choice presented to students at Town School D might be raising expectations too high, so that every student thought they should be able to get all their choices as of right. The data from the student questionnaires did not bear out this concern. Town School D's students generally found the school to be at least "fairly helpful" in relation to subject choice. Twenty-one percent of students said that the school was either "extremely helpful" or "very helpful" in the process of making their subject choices. A third saw the school as only "slightly helpful" or "not helpful at all".

Figure 4

School D Student Perceptions of School Help in Subject Choice



Seventy-three percent of students did not indicate that they had been unable to choose particular subjects they had wanted. Half of the 27 percent who did respond gave two reasons for not being able to take subjects of their choice. These included:

- constrained by timetable clashes (9 responses);
- needing to "prioritise" among the subjects they wanted to take (7 responses).

Other Subjects Seen as Desirable

Forty-three percent of students in Town School D suggested a number of other subject areas in which they would like classes to be offered. In comparison with the other five schools, this was the lowest response rate to this question. In order of preference, these were:

- vocational subjects (17 students);
- arts subjects (13 students);
- languages (12 students);
- physical education or health subjects (3 students);
- non-IT technology subjects (3 students);

- life skills or recreation-craft related subjects (3 students);
- social science based subjects (2 students);
- information communication technology subjects (1 student).

The popularity of vocational subjects may have a similar cause to the popularity of languages in City School A. Students' awareness of still more options appears paradoxically to reflect Town School D's effort to provide these as a focused, strong alternative in the senior secondary school. (See Table 9 on page 55.)

The most popular reason given for wanting these other subjects was "personal enjoyment or interest". Unlike the "personal enjoyment" reason given by students in the other schools in the project, this reason did not stand out markedly from other reasons given by students. At Town School D, "personal enjoyment" or personal interest was fairly closely followed by "future career" as a reason, perhaps again reflecting Town School D's focus in the area of career planning and career-focused programmes. Other reasons mentioned by a small number of students were "I'm good at it or have had previous experience in it", "usefulness for (non-career) adult life", and "to be different".

Summary

Town School D has invested considerable effort in the provision of less academic options for those students who are staying at school longer than they may have done in the past. It is both a STAR and a Gateway school. The principal has a vision of a curriculum that enables all students to achieve success, and the HODs appear to share this view, albeit with some reservations.

As in City School B, the widest range of less traditional choices is being provided within the broad ambit of the technology curriculum area. (The technology HOD, however, explicitly named just three courses as "technology" options.) Procedures for assisting students to make sound Year 11 choices are thorough, and staff go to considerable lengths to ensure each student follows an appropriate programme of study.

Students' awareness of the wide range of potentially available vocational options may be behind their desire to see even more such choices introduced at the school. Overall, fewer students suggested other alternatives than in any of the other five schools.

Some staff are concerned that the strong focus on vocational choices is at the expense of the more academically minded students, and that a polarisation of the student cohort is taking place. This is a concern shared in principle with Town School E (although the contextual specifics differ in the two locations). This concern does not appear to relate specifically to the NCEA standards-based assessments. Rather it is a commentary on the amount of teacher time and attention devoted to the different ability groups.

As in other schools, staff are concerned about a range of practical and workload issues associated with the NCEA implementation.

TOWN SCHOOL E

Overview

Town School E is a decile 7 boys' school. It is set in a prosperous town, surrounded by intensive horticultural developments that provide a significant source of local employment. For many people, living in this area is a lifestyle choice. While many students will remain in the area when they leave school, others will head for cities where they can gain university qualifications.

In this school we spoke to the principal and five HODs. Three of the five HODs interviewed had been at the school more than 20 years, and only one less than 10 years. The student questionnaire was administered by the teacher who happened to be taking each Year 11 class at a specified time, on the day when we visited the school. There are 184 students in Year 11, making this the largest group of students at this year level in our six schools.

Year 11 Subject Organisation

Town School E has approached the change from School Certificate to the NCEA somewhat differently from the five other schools. The NCEA certificate, based on "traditional" school subjects, is seen as just one possible avenue for the award of external qualifications within the broader National Qualifications Framework. Within this broader framing, both the principal and the interviewed HODs at Town School E appear to share a vision of the NCEA as *one of many* possible National Certificates available to students. One HOD we interviewed referred to this approach as involving students in doing the NCEA "incidentally" through a programme oriented towards a more specialist National Certificate (for example, the Year 12/Level Two National Certificate in Furniture Making).

In line with the school's qualifications philosophy, there are no "pure" NCEA courses at Year 11. Instead all students, regardless of the level at which they study the core compulsory subjects (English, maths, and science), are in line for the credits towards the National Certificate in Employment Studies (NCES). Combinations of the unit standards used to assess achievement for this award, and the achievement standards themselves, can also count towards the NCEA. A course and subject information booklet provides information about the range of available national certificates and cautions students that requirements for these certificates may overlap.[11] For this reason, students are urged to seek advice from school staff in planning their programme.

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[11] While credits can count towards more than one certificate, students receive one record of all their learning each year. On that formal record the source of their credits (whether unit standard or achievement standard) is listed only once. This prevents "double dipping" in terms of actual evidence of learning.

The course and subject information booklet also shows details for each subject on:

- prerequisites or entry requirements;
- skill requirements and expectations;
- methods of assessment (internal or external exam);
- credits available;
- course description.

A list showing whether each Year 11 subject continues on to Years 12 and 13 is provided, and if so, how it links to one or more Year 12 and 13 subjects.

Choices Within Compulsory Subjects

Town School E offers four compulsory core subjects and a choice of two optional subjects at Year 11. Core subjects are organised and named using the university system of levels (for example, 101 at Year 11, 201 at Year 12). The 101 courses are oriented towards the attainment of the NCES, rather than the NCEA, but may also count towards an NCEA.

English

There are two English courses:

- English 101 has a core of five English unit standards, and one core generic unit standard in keyboard skills; it is an 18 credit course and is fully internally assessed;
- English 102 is assessed by a combination of five or six achievement standards and five unit standards; it is a full 24 credit course.

Mathematics

There are three mathematics courses to cater for a range of ability levels:

- Mathematics 101 is divided into two half year courses: one course focuses on mathematics skills and is assessed by unit standards that carry 12 credits; the second 7 credit course teaches core generic skills of problem solving, employment rights and responsibilities and planning for the future;
- Mathematics 102 is a full year course that covers all five strands of the curriculum; it is internally assessed by unit standards and students can gain at least 24 credits towards a national certificate qualification (the classes taking this option are streamed and some classes may also be offered the chance to take externally assessed achievement standards);
- Mathematics 103 is an accelerant mathematics class that covers similar material to Maths 102, but at a higher level.

Science

There are two science courses:

- Science 101 is broadly based on the NZASE Certificate in Science course and students can gain this award at bronze, silver, or gold level, although the main focus of the assessment is on 12 core science credits for NCES unit standards. Students also study core generic skills such as measurement, and safety in the workplace. For these parts of the course they can gain an additional 6 credits towards the NCES. Assessment of the course also includes one internally assessed achievement standard worth two credits and one externally assessed achievement standard worth two credits;
- Science 102 covers a range of Year 11 topics from all four contextual strands of the science curriculum. The assessment consists of three core generic (NCES) unit standards worth six credits, two science unit standards worth four credits, two internally assessed achievement standards worth six credits, and four externally assessed achievement standards worth 18 credits.

Physical Education

Students must do one of two courses:

- PER 100 is the core physical education course, extending Year 10 PE, focusing on team play and tactics;
- PED 100 is aimed at students particularly interested or talented in sports, comprises twice as many classes as the core version, and offers a more specialised approach, including specific individual, as well as team, sports and aspects of physical fitness and training.

Optional Subjects

Students are offered a choice of two subjects from a wide range.

Technology (4 options)

Food technology, design technology (wood), design technology (metal), graphics.

Arts (3 options)

Art, music, and drama.

Social Sciences (4 options)

Geography, history, economics, and accounting.

Languages (2 options)

French and Māori.

Science (1 option)

Horticulture.

There are no French classes at Year 11 this year, as only 4 or 5 Year 10 students in 2001 took French and none had signalled an interest in it for 2002. Māori was offered in both 2001 and 2002, but no 2002 Year 11 students opted for it (this may be due in part to internal difficulties in providing appropriate staff to teach the course). There are Year 9 and Year 13 classes in Māori in 2002. While more specialisation in subjects is possible at Year 12 level, there are fewer Year 11 options than at any of the other five schools, and the available option choices are relatively traditional (see Table 10). One HOD suggested that without the arts, the school curriculum would be "severe".

Subject Choice Across Years 9–13

Table 10 summarises subject links across Years 9–13. This table shows how choices at Year 11 relate to what has gone before in the junior school, and the pathways that will potentially open up in the senior secondary school.

Table 10

Subject Choice Structure at Town School E in 2002

Curriculum Area	Year 9	Year 10 (3 options)	Year 11 (2/3 options)	Year 12 (4 options)	Year 13 (4 options)
English and languages	**Compulsory** English One of: French Māori Language Skills	**Compulsory** English	**Compulsory** English 101 or English 102	**Compulsory** English 201 or English 202	**Compulsory** English
		Optional French Māori Remedial/ ESOL*	**Optional** French Māori ESOL*	**Optional** French Māori	**Optional** French Māori
Mathematics	**Compulsory** Mathematics	**Compulsory** Mathematics	**Compulsory** Maths 101 or Maths 102 or Maths 103	**Optional** Mathematics	**Optional** Calculus Statistics
Sciences	**Compulsory** Science	**Compulsory** Science	**Compulsory** Science 101 or Science 102	**Optional** Agriculture Biology Chemistry Electronics Forestry Horticulture Science Physics	**Optional** Ag/Hort Biology Chemistry Forestry Physics
		Optional Agriculture/ Horticulture	**Optional** Horticulture		
Technology	**Compulsory** Any three of: Food Tech. Design Tech. Media Tech. Electronics Tech. Structures Tech.	**Compulsory** Any two of: Food Tech. Design Tech. Media Tech. Bio Tech. Materials Tech.			
		Optional Graphics Workshop Studies Home Economics	**Optional** Food Tech. Design Tech. (Metal) Design Tech. (Wood) Graphics	**Optional** Engineering Furniture Making Hospitality & Catering Graphics	**Optional** Furniture Making Hospitality & Catering Graphics
The Arts	**Compulsory** Any two of: Art Dance Drama	**Compulsory** Any two of: Art Drama Music			
		Optional Art Music	**Optional** Art Computer Studies Drama Music	**Optional** Art Computer Studies Drama Music Media Studies	**Optional** Painting Computer Studies Design Printmaking Media Studies Music
Social Sciences	**Compulsory** Social Studies Civics Consumer Stud.	**Compulsory** Social Studies	**Optional** Geography History Economics Accounting Social Studies	**Optional** Geography History Economics Accounting Classical Studies Legal Studies Enterprise/Mgmt Studies	**Optional** Geography History Economics Accounting Classical Studies Enterprise/Mgmt Studies
		Optional NZ History NZ Geography Business Studies Enterprise Studies Economics Accounting			
Health and PE	**Compulsory** Health PE Outdoor Ed.	**Compulsory** Health PE Outdoor Ed.	**Compulsory** Core PE	**Compulsory** Core PE	
			Optional PE	**Optional** PE EOTC** Sports Academy Sports Certificate	**Optional** PE EOTC Sports Academy Sports Certificate

* Available where needed

** Education Outside the Classroom

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Catering for Student Subject Choice

The interviewed staff at Town School E were very consistent in the rating responses they gave. All five HODs and the principal indicated that in their opinion the school catered "very well" for student subject choice at Year 11, although two people were unsure as to whether "fairly well" might not better represent their opinion.

extremely well	very well	fairly well	not very well	not well at all
	6	(2)		

Several HODs commented that support for student choice via career and general advice could be improved. It was suggested that sufficient resources had not been put into this area, especially since the resignation of the careers advisor. The school does, however, currently hold a number of careers evenings for Year 10 students. One HOD suggested that more effort could be made to include more of the parents in these, as many tended to be uninvolved at present. The principal commented that, to some extent, the school had redefined "choice" for students by making certain subjects considered important compulsory. He is aware that this has highlighted a tension between unrestrained freedom of student choice and more prescriptive school leadership, via the specifics of curriculum organisation.

One HOD expressed the opinion that the school had moved *against* free choice for students. Time at Year 10 level was a constraint for Year 11 choice, because prerequisite knowledge for some Year 11 subjects could not adequately be covered at Year 10. As one HOD pointed out, adding more subjects does not in itself constitute greater choice for students, since timetable restrictions come into play, and students can currently make only two choices at Year 11.

Meeting Student Needs

Most of the HODs stressed the school's vision for every student to attain some kind of National Certificate. Courses leading to National Certificates in mechanical engineering and furniture making are popular choices, in addition to NCES and NCEA. The emphasis is on enabling students to pursue an interest, within the subjects offered. However, Town School E's curriculum may well be a compromise between the vision of structuring the curriculum to achieve multiple flexibility of national awards, and what the principal calls the "conservative forces" of parents. The demands of parents are certainly an issue in any school community, and Town School E parents appear to fall into two quite distinct groups. On the one hand, significant numbers are tertiary-level qualified and have high expectations of the school and their children. As one HOD noted, these parents measure the school's success in meeting their expectations in terms of achievement in established exams for external qualifications, such as School Certificate, University Entrance, and Bursary. However, another HOD commented that many students and their parents are "vocationally oriented". Given the location of the school, a consequence of this vocational focus is that the student body becomes polarised between those who plan to leave the area for further tertiary level study, and "the rest" who will be staying on for local jobs. In weighing the same dilemma, the principal also recognised that the introduction of the NCEA presents both a challenge and an opportunity in terms of the possibilities to broaden both the curriculum and the delivery of subjects.

While Town School E takes an approach that strongly encourages academic achievement, several factors may impact on the manner in which this vision unfolds in reality. One HOD called it a "success at all costs" system, while another made particular reference to ensuring that students thought fit for a 102 level course did not opt into a 101 level course and take "the easy option". While students choose their Year 11 options, the level at which they study *all* their core subjects (English, maths, and science) is determined by teachers' opinions of their abilities, strongly influenced by their Year 10 test results. When the HODs collectively identify students for either NCES or NCEA in all their core subjects, they effectively produce two ability streams at the school. Several HODs referred to a pattern of chronic under-achievement at the school, suggesting this could be related to having a student population of boys, who are less interested in school work (and time management) than many girls. However, it could also be that the two-stream consequence of some subject choice practices has an impact on the motivation of some of the "101 level" students. This will be explored when individual students are interviewed next term, and the responses compared with those of "low achieving" students from the other five schools.

Views on the NCEA and Student Achievement

The principal and most of the HODs expressed the belief that the NCEA offers better opportunities for students to demonstrate what they know and can do. The principal cited a loss of credibility for School Certificate and its perceived benefits as being prime motivators to embrace unit standards and National Certificates. The principal argued that the driving up of standards would occur more easily for unit standards than for achievement standards, because achievement standards have much more "content" associated with them, and are less easily associated with a "clear cut shot" at being competent or not competent. In addition, certain skills such as "capacity for insight" are important, but difficult to credential at a school level or setting. His sense of NCEA is that it will greatly assist the reworking of the school curriculum, when considered in terms of the National Qualifications Framework.

The principal saw the biggest challenge in meeting student needs as being the identification of those needs. Students did not always know what they might need, and he admitted that often, neither he or the staff did either. In his opinion, the challenge is to "future proof" students so that their learning can continue to serve them well in the years beyond school. However, any degree of certainty in creating opportunities for the students is dependent upon judgments about the future itself. Viewed in these terms, the principal speculated that a coming challenge is to structure a curriculum response that is "not tied to subject interests". He mentioned the Queensland government's "New Basics" integrated curriculum reform as an interesting example of a move in this direction.

The principal cited several new courses that he felt were working well to innovate the curriculum and provide useful and relevant choices for students:

- Business studies (working to break away from the accounting/economics framework);

- Earth science (science plus practical research, with unit standards in recreational fishing and forestry; putting scholars alongside workers);
- Technology, particularly the work in furniture making, but with a general focus on general construction and carpentry (working with furniture and construction Industry Training Organisations).

The principal also noted the challenge of keeping staff thinking broadly about the difference between *learning* and *assessment* for credentials. However, because the school had already embraced unit standards some years earlier, the introduction of the NCEA has not been as politically or practically problematic as in some of the other schools we studied. Nonetheless, several HODs made mention of a necessary shift in mindset for staff, and one suggested that students used to an exam system, with a concentration of work at the end of the year, might find the move to ongoing assessment the hardest mindset shift of all.

Most HODs felt that the NCEA would make a difference to the *types* of skills and abilities assessed. There was a belief that the NCEA's focus on assessment throughout the year, as opposed to an end of year, one-shot exam determining success or failure, was a more accurate and realistic way to assess students. One related this specifically to the general organisation and requirements of a workplace, where nobody was expected to do or be good at every job in that workplace; specialist development was to be welcomed. This view that the NCEA was more realistic was particularly strong for HODs in several subjects where exams were thought to be measuring quite different things from what was being taught, and was considered important for students to know or be able to do within the particular subject field.

Several HODs also felt that the *level* of skills and abilities assessed in students would change with the NCEA. Comments were made about the clarity of knowing what had to be achieved, and the possibilities for applying knowledge to specific, in-depth projects that would now count towards the Certificate.

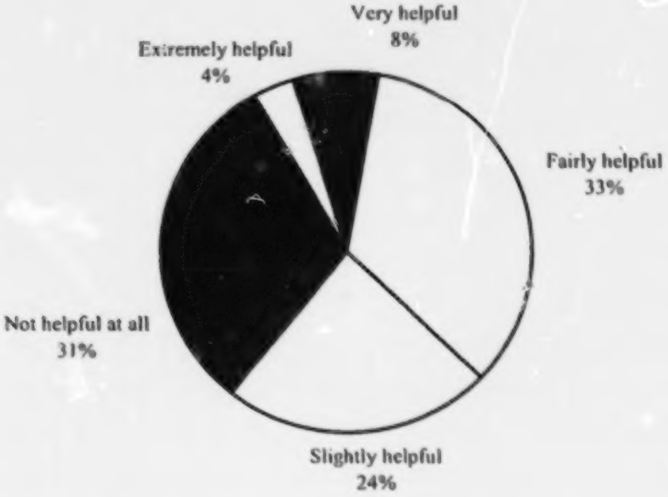
Several HODs commented on the use of unit standards and achievement standards generally, saying that there were workload issues for the students as much as for the teachers. Several HODs felt that boys, in particular, were challenged by the planning and time management required to be successful in the new programmes. One felt that the local "disease" of avoiding school work until the last possible moment (the exam) might finally be laid to rest with the new system.

Students on Subject Choice

There were 171 responses returned from a total Year 11 cohort of 184 students. At 93 percent this was easily the most comprehensive response from a student cohort.

Figure 5

School E Student Perceptions of School Help for Subject Choice



Twelve percent of the students thought that the school was extremely or very helpful with the process of making their subject choices. Just over half saw the school as only slightly helpful or not helpful at all.

Of the 171 students who completed the survey, 49 indicated that subject teachers, deans, and HODs had influenced at least some of their subject choices. Twenty-one of these students also selected the "not helpful at all" option when responding to school help for subject choice. We did not find this strong association between staff assistance and views of "lack of helpfulness" in any of the other five case study schools. However, rather than being a commentary on any individual staff, it may well be that the tensions between conservative parental expectations and the school's vision of quite different types of qualifications pathways is impacting on these 21 students' negative perceptions of the help offered by the school. This possible dissonance between the (seemingly shared) staff vision and the students' and parents' views on appropriate subject choices will be further explored in student interviews later in the year.

Perhaps reflecting their awareness of the circumscribed choices actually available, 84 percent of the student cohort made no response to the question about other choices they would have liked to be able to make. When asked about why they hadn't taken subjects they would have liked, those students who did respond commented on being constrained by timetable clashes, and that those preferred subjects were not taught at the school. As noted above, the principal and the HODs are very aware of the tension between opening up choice, and keeping a broad core of compulsory subjects, at least until the end of Year 11.

Other Subjects Seen as Desirable

Fifty-seven percent of students responded to the question about what other subjects they would like offered at the school. Subject areas suggested by students were (in order of preference):

- arts subjects (33 students);
- vocational subjects (22 students);
- technology subjects (20 students);
- information communication technology subjects (20 students);
- life skills or recreation-craft related subjects (13 students);
- languages (10 students).

By far the most popular reason given for wanting these other subjects was "personal enjoyment or interest". This reason was a significant motivator for students who wanted to take recreational PE and arts subjects in particular. The next most popular reason was that the subject was not offered at Year 11 level. Town School E students showed particular interest in media studies, which is offered as an option within the arts curriculum area at every year level except Year 11 (see Table 7). A smaller number of students mentioned "future career" as a reason for wanting other subject choices.

Summary

Town School E has travelled further down the NQF reform pathway than any of the other five schools. The principal has a strong philosophy of assessment for credentials, and the staff appear to share his vision. In this school, students can work towards a range of national certificates, and the NCEA implementation simply adds to the options that were already available. Staff were already familiar with unit standards as an assessment tool. They made less mention of the time needed for moderation procedures and for adapting tasks than staff at other schools. We heard less concern about workload issues than in the other schools.

The school's assessment innovation is not without tensions, however. Staff are unsure how much choice should be circumscribed at Year 11, in the interests of laying a broad educational foundation, and how much it should be opened up to keep students motivated and interested. Currently the most innovative changes at Year 11 appear to be within the "core subjects", with a rather traditional range of optional choices on offer. (Unlike City School B and Twin School D, the technology curriculum at Year 11 has remained relatively traditional.) With four compulsory subjects, students can make few personal choices. They are clustered into ability groups in which they study all four compulsory subjects, effectively creating "streamed" bands with the school. Some staff are concerned that the student cohort is becoming polarised between academic and vocationally oriented students. It also appears that some parents may not yet share the school's vision, or perhaps understand the many alternatives for credentialling a wide range of learning experiences. Since this key principle of the NQF reforms is well understood by the staff, this issue will doubtless be resolved with ongoing communication within the whole school community.

Perhaps because their choices are so constrained, more students than at any of the other five schools appeared to be have been able to take the courses they wanted in the 2002 year. They did, however, express a very strong desire for more arts subjects at Year 11. (Media Studies is a popular choice within the arts curriculum area, and it is currently available at every year level except Year 11.)

TOWN SCHOOL F

Overview

Town School F is a decile 5 co-educational school set in a small rural community, and serving several other nearby small rural communities. Horticulture, fishing and tourism are central to a local economy that relies on a semi-skilled local labour market as well as semi-skilled itinerant workers, often from overseas. There is a flourishing arts community in the local area, and the school prides itself on its good reputation in the visual and performing arts.

In this school we spoke to the principal and five HODs. The principal and four of the HODs have been at the school less than five years. One HOD has been at the school for more than 25 years. The student questionnaire was administered by the teacher who happened to be taking each Year 11 class at a specified time, on the day when we visited the school. With 141 Year 11 students, this was the smallest of all the student cohorts.

Year 11 Subject Organisation

Despite their lower numbers compared with the other five schools, Year 11 students are offered a wide range of subject option choices. However, timetable clashes may act to constrain the actual choices available, especially as students are required to take four compulsory subjects at Year 11, leaving them with less room for personal choice than at most of the other case study schools. The timetable is largely student-driven, and is reorganised each year dependent upon numbers of students opting for particular courses, combinations of subjects selected by students, and staff availability.

The school is currently undergoing a curriculum review for the junior school, with the senior school to follow next year. As part of this process, staff are debating student choice policy. The key question, as in Town School E, appears to revolve around how much choice should be constrained at Year 11 in the interests of developing a broad knowledge/skills base for subsequent option choices at Years 12 and 13. One HOD suggested that in view of the changes now possible with the NCEA, there needed to be a clear basis for new courses, a process that was not driven solely by timetabling or teacher availability. Vertical forms and a six day timetable have been suggested as a possible way through some of the problems.

Choices Within Compulsory Subjects

Year 11 students at Town School F all take six subjects, four of which are core compulsory subjects.

English

There are two types of English at Town School F:

- English is a full achievement standards course (NCEA Level One), of which half is internally assessed and the other half externally assessed;
- Alternative English is assessed through unit standards leading towards the NCEA, although the school is currently considering an English course with credits towards the National Certificate of Employment Skills. The course is designed for students who will have difficulty with the standard English course. Numbers are limited and decided upon by the dean, in consultation with English subject teachers.

Mathematics

There are three types of mathematics courses available:

- A one year achievement standards course (NCEA Level One) called maths achievement standards. Six topics in the subject are externally assessed through an exam for which two practice exams are held. The other three topics are internally assessed.
- Maths unit standards, a two year course aimed at students for whom maths achievement standards will be too difficult over one year, but for whom achievement may be possible over a longer period of time, and with revision of the Year 10 maths curriculum. Assessment is through unit standards, but successful students may do maths achievement standards after the first year.
- Mathematics Applied I, a one year course aimed at students for whom both maths achievement standards and maths unit standards will be too difficult.

Science

There are two forms of science offered at Town School F:

- Science is a full achievement standards Level One NCEA course. Eighteen credits are assessed through external exams. The remaining six credits can be gained through internal assessment.
- New Zealand Association of Science Education (NZASE) science is designed for students not yet able to achieve a credit at Level One NCEA, although successful students may move on to Level One NCEA science the following year. Students are assessed in a variety of ways and work towards the achievement of a bronze, silver, or gold NZASE Certificate in Science.

Physical Education and Lifeskills

A combination of physical education and lifeskills is compulsory for all Year 11 students. Physical education is 100 percent internally assessed and has ten achievement standards credits available at Level One NCEA. Lifeskills is made up of seven unit standards:

- Managing stress;
- Producing a CV;
- Managing use of time;
- Personal use of alcohol and other drugs;
- Managing anger;
- Managing personal sexual behaviour;
- Producing a career plan.

Optional Courses

Students choose two optional subjects from the following subject areas.

Technology (4 options available)

Material technology (wood), materials technology (metal), materials technology (fabric), and graphics.
Graphics students are expected to have studied the subject at Year 10. There are no prerequisites for the other technology courses.

Arts (3 options available)

Art, drama, and music.
Music students are expected to have had at least two years of music tuition as an entry requirement. Drama students are expected to have taken this subject as an option at Year 10. Year 9 and Year 10 students are able to do Year 11 arts subjects as an accelerant class.

Social Sciences (5 options available)

Economics, accounting, social and community studies, geography, history.
Accounting students must also be studying Level One NCEA mathematics. The social and community studies course is a full 24 credit NCEA course, based on the social studies curriculum at Year 11.

Languages (2 options available)

German and Te Reo Māori.

Information Technology (2 options available)

Computer studies and information management.
Both are full NCEA courses, with Year 10 text and information management (TIM) advised as an entry requirement into the information management course.

Home Economics

Food and nutrition, and cooking and food preparation.
The food and nutrition course information emphasises that students should choose this option only if they are prepared to study a full Level One NCEA course. It is assessed by

a combination of unit standards and achievement standards. The cooking and food preparation course is assessed by unit standards and is a more practical course.

Science

Horticulture.
This is a 24 credit NCEA course.

Subject Choice Across Years 9–13

Table 11 summarises subject links across Years 9–13 in Town School F. This table shows how choices at Year 11 relate to what has gone before in the junior school, and the pathways that will potentially open up in the senior secondary school.

Table 11

Subject Choice Structure at Town School F in 2002

Curriculum Area	Year 9 (1 option)	Year 10 (1 Option)	Year 11 (2 options)	Year 12 (5 options)	Year 13 (5 options)
English and languages	**Compulsory** English	**Compulsory** English	**Compulsory** English or Alternative Eng.	**Compulsory** English or Practical Eng.	**Optional** English
	Optional German Māori	**Optional** German Māori	**Optional** German Te Reo	**Optional** Te Reo	
Mathematics	**Compulsory** Mathematics	**Compulsory** Mathematics	**Compulsory** Mathematics or Maths US or Maths Applied	**Optional** Mathematics or General Maths	**Optional** Calculus Statistics
Sciences	**Compulsory** Science	**Compulsory** Science	**Compulsory** Sci NCEA or Sci NZASE **Optional** Horticulture	**Optional** Biology Chemistry Horticulture Physics	**Optional** Biology Chemistry Horticulture Physics
Technology	3 **Compulsory** half year modules Materials Tech. (Hard/Soft) Food Tech/Biotech IT/Communication Tech Then an extension module in one of these in Terms 3 and 4, Year 10		**Optional** Materials Tech (Fabrics) Materials Tech (Wood) Materials Tech (Metal) Graphics	**Optional** Fabric Tech and Design Design Tech (Wood/Metal) Graphics Electronics	**Optional** Fabric Tech and Design Design Tech (Wood/Metal) Graphics
The Arts	3 **Compulsory** half year modules Art Drama Music Then an extension module in one of these in Terms 3 and 4, Year 10		**Optional** Art Drama Music	**Optional** Practical Art Drama Music Photography	**Optional** Painting Design Music Photography Printmaking Sculpture
Social Sciences	**Compulsory** Social Studies **Optional** Future Problem Solving	**Compulsory** Social Studies **Optional** Future Problem Solving	**Optional** Accounting Economics Geography History Social and Commnty Stud	**Optional** Accounting Economics Geography History Art History	**Optional** Accounting Economics Geography History Art History
Health and PE	**Compulsory** Health PE	**Compulsory** Health PE	**Compulsory** PE/Lifeskills	**Optional** PE Outdoor Ed.	**Optional** PE Outdoor Ed. and Sport
Vocational/ Other	**Optional** Enrichment (includes Adventure Skills, Māori Art, Computing)	**Optional** Enrichment (includes Community Issues, Careers Ed, Horticulture)	**Optional** Cooking/ Food Food/Nutrition Computer Stud. IM	**Optional** Home Ec. Industrial Pathways Computer Stud IM Tourism Transition	**Optional** Home Ec. Industrial Pathways Computer Stud IM Tourism Transition

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Catering for Student Subject Choice

Year 11 students are given the school's Senior Subject and Assessment Guide, which shows details for each subject on:

- prerequisites or entry requirements;
- skill requirements and expectations;
- methods of assessment (internal or external exam);
- credits available;
- course description.

A list of all subjects at Years 11, 12, and 13 is also provided to students. The list shows whether each subject continues on to Years 12 and 13, and if so, how it links to one or more Year 12 and 13 subjects. The Year 11 subject choice form is filled out by the student, signed by a parent or caregiver, and returned to the school by August the previous (Year 10) year. Parents are asked to indicate on the form suitable times for an interview to discuss subject choices for their children.

The interviewed staff (including the principal) rated the school's current subject choice practices at different points on the scale provided, depending on the emphasis they placed on specific aspects of this process. One HOD felt unable to make a ranking, having been in the school only a short time.

extremely well	very well	fairly well	not very well	not well at all
	2	3		

Most of the comments about how well the school caters for subject choice centred on timetabling challenges and difficulties. One HOD referred to the prevalence of timetable clashes, particularly if subjects had only one teacher or a subject took up a double period, affecting the entire school and timetabling system. Certain combinations of subjects, such as German and music, or music and drama, were impossible. One HOD felt that poor timetable provision was made for the "fringe" subjects, not closely related to core subjects or vocational areas, which impacted on student subject choices. The principal cited low numbers in certain subject areas making it difficult to hold classes, with correspondence courses being the only possible path. He was keen to offer more languages and even classical studies. Spanish could be valuable for one local employer who required Spanish speakers, and languages generally were thought to offer a particular skill and value which students were otherwise missing out on. Several HODs related subject choice limitations to the size of the school, saying that there was not as much room to move on timetable clashes as in larger schools. One HOD also mentioned some students missing out because of limited space and resources in some subjects.

Meeting Student Needs

HODs and the principal emphasised the effort that goes into attempts to provide the best for the students. They referred to a general willingness among staff to make changes, maintain a good collegial atmosphere, and share ideas.

One HOD suggested there was some debate in the school over whether students had enough individual choice, with only two possible optional subjects at Year 11. There was some consideration of whether Science and Physical Education should continue to be compulsory. However, another HOD felt there was possibly *too much* choice at Year 11, and since most students went on to Year 12 anyway, there might be a case for holding off on any specialisation and ensuring all Year 11 students are well versed in the core curriculum subjects and skills. In the same vein, another HOD thought students were too young to know what they wanted. This HOD saw it as the school's responsibility to give them a broad base from which they could later make career decisions.

One of the challenges seen by the principal and one of the HODs lies in catering for those of this year's Year 11 students who will reach Year 12 next year with some, but not all, credits in a subject. The principal believes the school will move more towards a modular system of delivery, adapting current courses to meet this new contingency, rather than making "huge disruptive changes" that could trigger negative responses from both staff and parents.

Two HODs raised the issue of ensuring courses that do run are relevant and interesting to students. They both found it challenging to keep students focused and motivated. One blamed students' after-school and weekend jobs—a product of a general societal focus on money—that left students with less time for study.

The principal and two HODs stressed that it was vital to educate students and parents about the NCEA and listen to their concerns. One of those HODs felt the community, particularly local Māori, was particularly supportive of the school. Another HOD expressed the opinion that the school had particularly good communication channels between students and senior management. However, one HOD suggested that students were influenced more by their friends and subject choices that seemed "exciting", rather than by being able to look ahead and think about what would benefit them long-term and for future studies or work.

Views on the NCEA and Student Achievement

The principal and most HODs were positive about the NCEA, and felt that the NCEA would challenge students more and provide better assessment of what students could actually do. Several HODs also felt that the NCEA offered new opportunities, particularly for the more academically-inclined students, where research and planning components were involved. One HOD thought that the NCEA structure offered more flexibility in course design and greater freedom for teachers to follow particular tangents in a course.

Many of the HODs raised issues of workload in relation to the NCEA. While they were positive about the changes for students' sake, they were concerned at the extra work involved and lack of sufficient guidance available. Several HODs were keen to know how other schools and subject teachers were handling the NCEA. One spent time in a schools' cluster group, working on issues of delivery and moderation; another took part in internet discussion groups with other concerned teachers, as a way to share ideas and ascertain what worked in other schools. This HOD was also concerned with the extra pressure on resources for practical work in their particular subject area, due to the NCEA internal assessment. One HOD suggested that at least two staff members were considering leaving as a result of the extra stress of the NCEA. Another claimed the question of the NCEA's success would turn on whether the long-term gains to students were worth the extra stress and cost to teachers.

Most HODs felt that the NCEA would not make any difference to the *types* of skills and abilities in students that will be assessed, although the principal and two HODs suggested that the inclusion of research would make a limited difference, insofar as skills could be further integrated. One HOD thought there would be a significant difference in the emphasis now placed on skills of actually *doing* that could provide interesting new challenges for academic students.

However, all the HODs felt that the NCEA would certainly make a difference to the *levels* of skills and abilities assessed. Two HODs thought that, for their subjects, it would be difficult to assess "excellence", and well nigh impossible for students to actually achieve, as the standard was considered well above what could be expected at Year 11 level. One of those HODs expressed anxiety over the wording of "achieved", "merit" and "excellence" in the achievement standards, and questioned the relevance for their subject. They suggested that their students were being overloaded, and that second attempts at assessments would cause timetabling problems. Another HOD, anxious about the level required for "excellence" in their subject, claimed their subject had gone through the most change, compared with other subjects. This subject tends to cater for low achieving students; the HOD worried that the new regime of achievement standards may not cater well for them, in comparison with unit standards which were thought to be relevant, useful, and recognisable to students. This HOD thought that achievement standards were overly theoretical and generally very difficult to work with in their subject. Two other HODs were aware of the extra detail required in the new assessments, but thought this would benefit the students, who would now know more about exactly what was required of them.

Both the principal and one HOD were concerned that the NCEA might not yet have established a good fit to various ability levels. Both felt that higher academic ability students might not be challenged enough.

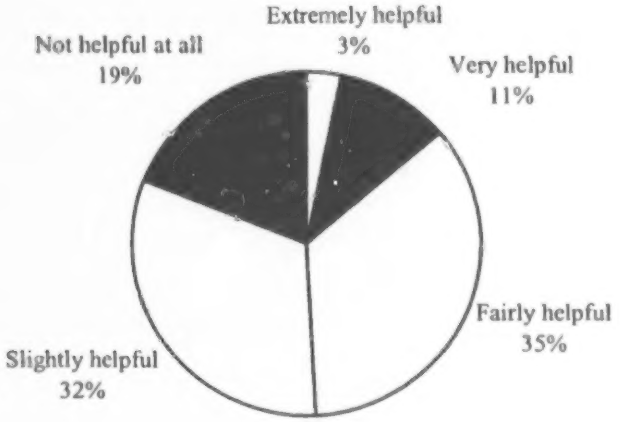
Students on Student Choice

There were 124 responses returned from a total Year 11 cohort of 141 students—an 88 percent response rate.

Fourteen percent of the students found the school either extremely or very helpful in making their subject choices. However, half found the school either not helpful at all or only slightly helpful—a similar pattern to that found in the other schools.

Figure 6

School F Student Perceptions of School Helpfulness for Subject Choices



Seventy-seven percent of students did not respond to the question that asked them to identify subjects they were not able to choose. The rest were evenly split between giving one or two reasons for being unable to choose subjects they would have liked to take. The most commonly mentioned response was being constrained by timetable clashes, resonating with comments made by many of the HODs and the principal. A small number of students made comments about needing to "prioritise" among their subject choices, and being limited because of oversubscribed classes or teacher unavailability.

Other Subjects Seen as Desirable

Forty-seven percent of students suggested other subjects they would like to be offered at the school. They suggested:

- physical education or health education subjects (15 students);
- vocational subjects (15 students);
- arts subjects (14 students);
- languages (9 students);
- life skills or recreation-craft related subjects (7 students);
- non-IT technology subjects (7 students);
- social science based subjects (5 students);
- information communication technology subjects (1 student).

By far the most popular reason given for wanting these other subjects was "personal enjoyment or interest". Reasons such as "future career" and "usefulness for (non-career) adult life" were also mentioned by a small number of students. The personal enjoyment and interest factor was the significant motivator for students wanting to take additional PE and art in particular.

Summary

Town School F has the smallest Year 11 numbers, but it sustains at least the same level of student choice as the other schools. Timetabling is a challenge, however, and curriculum revision is a focus of internal school debate. Once decisions for the revision of the junior curriculum for next year have been implemented, changes at the senior level are also expected to begin. At present the senior curriculum offers relatively traditional choices, although an innovative life skills/PE course is compulsory for all Year 11 students. Students expressed an interest in having more options in the PE/health curriculum area and in vocational options.

As in Town School E and for some students at City School A, students can make only two option choices. The balance of their Year 11 programme is compulsory. However, in common with all five other schools, a range of alternative courses is now provided within the compulsory core subjects to cater for different ability levels. The revision of these alternatives to make best use of NCEA achievement standard/unit standard flexibility of assessment options was a notable feature of this revision in all six schools.

Again in common with all five other schools, staff in Town School F are wrestling with the implications of the NCEA implementation for the structuring of their Year 12 courses for next year. The anticipated availability of more explicit achievement information is focusing attention on issues of individual student learning needs. Town School F is in a very pleasant area and has a settled staff, some of whom are long serving and nearing retirement age. Younger HODs, new to the school, face heavy workloads as they encourage the development of shared understandings of the new assessment procedures, especially moderation.

SECTION FIVE: HEADS OF DEPARTMENT

Interviews were conducted with Heads of Department (HODs) in each school in five areas of the curriculum—English, Mathematics, Science, the Arts, and Technology. These particular areas were chosen in order to cover curriculum areas that encompassed subjects in the Year 11 core and optional curriculum, where both achievement standards and unit standards are used separately and in various mixes. HODs were interviewed, rather than teachers in particular subject areas, since HODs are at the forefront of implementing curriculum and assessment changes which impact upon student subject choice. Interviewing a range of HODs allowed us to gather different views about the impact of the introduction of the NCEA in different subject areas. The various issues raised here point to NCEA-initiated changes in subject organisation and content, which influence students', teachers', and parents' perceptions about student subject choice.

English HODs

Teaching Experience

Four of the six English HODs taught a range of English classes across all the secondary school years, up to and including Year 13. The other two taught classes up to Year 12 level, and one of these HODs also taught two performing arts classes. Only one of these HODs taught an "alternative" Year 11 class.

Two HODs were new to their schools in 2002, while one had been teaching at their school for 26 years. The others had been at their schools for between 3 and 16 years.

Subject Choice and the Challenge of Meeting Student Needs

All the English HODs saw benefits in providing alternatives to full Level One achievement standards courses for less able students. Students are more willing to choose such courses now that they can be used to gain NCEA credits. Several HODs commented that the perception of "cabbage English" is disappearing in their schools, and that parents as well as pupils are more accepting of the school's recommendation with regard to the desirability of taking the alternative course.

A common characteristic of these alternative courses is that they appear to be largely or fully internally assessed. The HODs share a belief that students who take these courses often cannot readily demonstrate their learning under external examination conditions. One HOD, who previously offered a "practically based" alternative English course, noted that the change to NCEA has allowed changes that make this course more broadly similar to the full NCEA course, a move that she sees as keeping more learning options open for students in Year 12. In a similar vein, another HOD noted that the use of unit standards for assessment has "raised the threshold" of the alternative course in comparison with the "practical English" course that was previously offered.

For one HOD the alternative course at Year 11 completes an alternative pathway right up to Year 13, allowing students to keep doing "viable and interesting things" in English regardless of their achievement record. Another HOD noted that gifted and talented students are not being well catered for. According to this HOD, despite staff discussion about the desirability of individual programmes of learning that could meet the needs of such students, "nothing happens".

Issues of Course Structure and Standards

Most HODs anticipated few changes to the overall structure of their Year 11 English course in comparison with past years. One noted that the amount of literature in the full course had been reduced in order to accommodate the additional time needed for the internally assessed achievement standards.

However, possible structures for subsequent Year 12 English courses are a source of considerable uncertainty at this point in the NCEA implementation. Two HODs noted that, where previously students who had gained 50 percent or more could move up regardless of their actual patterns of achievement in the various aspects of the course, the more detailed information that will now be available should ideally allow for more clearly differentiated Year 12 course structures. One of these HODs mused that their school might well allow prerequisites to "evolve" in a manner that identifies core Year 11 achievement standards that must be passed for progression into Year 12. The other HOD reflected on the tensions between the "practical and the ideal"—if freed of bells and timetable constraints, she could envisage a "smorgasbord of modules", with students free to choose courses appropriate to their achievement to date, in much the same manner as happens at university level. She could envisage "seven different packages" for the school's seven Year 12 English classes. A third HOD noted that English was to be made compulsory in Year 12 in their school, although the structure of the courses for next year is, as yet, far from clear. Looking ahead, one HOD reflected that Bursary English is "too hard" for many students. This HOD hopes that as the NCEA implementation proceeds, it will become possible to provide more varied courses to meet diverse student needs at Year 13.

Four of the six HODs did *not* believe that the *types of skills* being assessed in Year 11 English would change with the change in assessment regime. As one noted, "the curriculum is still the same". However, whereas a skill such as speech making could previously be assessed only via after-the-fact discussion and analysis, now the actual act of making the speech could be directly assessed. Two HODs did note a change in emphasis on mechanical accuracy, with intrusive errors now included as one aspect of the assessment of creative writing. Both saw a tension between creativity and accuracy in this change. Both had made care in draft preparation a bigger focus of their teaching in response to this challenge. Another HOD identified personal challenges in assessing creative writing. She felt "safer and happier" assessing formal writing.

Only two of the HODs did not believe that the *level of skills* assessed would remain the same. The other four all commented on some aspect of increased learning challenges. One noted a considerable improvement in the standard of students' work on static images, noting that these could now be directly assessed, where previously "they only did them to write about them in School C". For this HOD, who also commented on increased demands for mechanical accuracy in writing, it is "ironic that achievement standards are being accused of dumbing down". Another HOD made similar comments about the crafting and delivery of speeches.

Several HODs commented that students are making a more sustained learning effort now that their assessments are spread throughout the year. One noted a culture in the school of students "waiting for the exam to roll around—they are keen to pass but not to do the work". Now that the "hurdles come regularly", the HOD hopes this culture will break down. A different perspective was provided by the HOD who noted that early failure in internally assessed components can discourage students so that they "switch off". This HOD is trying to encourage such students to understand that they can still get credits in other parts of the course, but clearly sees this as an ongoing challenge.

Meeting Teacher Needs

As they develop their own professional understanding of processes for assessment with achievement standards, the HODs have looked to the NZQA exemplars for guidance. One noted that, at the time of interview, no exemplar for video production was as yet available. This HOD had made the decision "only to run with MOE tasks because it is hard work to make our own". Another noted that there had been no exemplars for assessment of short stories for some time, and also that exemplars which "look straight forward and sensible at first" do not actually cover all contingencies when put into practice. Download time was noted as an issue by one of the English HODs. As in other subject areas, HODs who have previously worked with unit standards appear to be more relaxed about using the achievement standards than those for whom this type of assessment is new.

All the English HODs are feeling the pressure of the extra time needed for NCEA implementation. One who began the year feeling "excited and supportive of NCEA" was less so by April, because of budgeting and workload issues. Another noted that "marking takes more time now", as does the use of video, and students are experiencing disappointment with delays in learning of their marks. This HOD noted the difficulty of finding the time needed for the entire English team to meet for the lengthy discussions that they feel they need to reach a common understanding of their marking procedures. They are feeling the tension between doing the best for their students, and not doing them a disservice by assessing them with higher pass rates than prove to be justified after moderation. As the HOD noted, the staff at this school "desperately need help" with moderation. Another HOD made very similar comments about the time needed for her team to make joint marking decisions and to practise their new moderation procedures.

Three HODs specifically mentioned help and support from Internet sources. One commented on access to a list serve that has been recently set up for English teachers by an advisor at one of the Colleges of Education. The HOD noted that interesting material was already being posted and that it would be good for asking "who has…?" type of questions, so that HODs could pool their experience. While not specifically identifying this list serve, the HOD who asked for help with moderation did identify "Internet discussion" as helpful.

Challenges with developing systems for storing all the information generated by task preparation, assessment, and moderation procedures were noted by one HOD, who also noted the additional costs associated with the extra paper needed for photocopying of task material. One HOD also noted resource problems that are created if "everyone is doing the same thing at the same time", but this is not a challenge unique to NCEA.

Mathematics HODs

Teaching Experience

All six mathematics HODs teach at several year levels. While none are teaching Year 9 students in 2002, five of the HODs have at least one Year 10 class. All teach at Year 11 and at Year 13—some mathematics with statistics, some mathematics with calculus, and some both. Only one HOD is teaching an "alternative" maths course at Year 11 in 2002. Two of these HODs have responsibility for the school timetable, and one is the school's ICT co-ordinator.

Four of the six HODs have been in their schools for less than 10 years. The other two have been teaching at their schools for 14 and 28 years respectively.

Subject Choice and the Challenge of Meeting Student Needs

Like the English HODs, the mathematics HODs saw benefits in providing alternatives to full achievement standards courses for less able students. One HOD reflected on the school's ability to provide more options to meet student learning needs in mathematics now, saying that even while "philosophically against NCEA", she was "not blind to its advantages" in this regard. Another said he preferred to suspend judgment about the success of the new option structures until the end of the year. He was encouraging his staff to help students achieve "success at all costs", provided that assessment standards are not compromised, but from feedback so far he feels that students' attitudes will determine whether or not they actually benefit from the changes.

While the English HODs reported that students are more willing to choose alternative courses now, and that the perception of "cabbage English" is disappearing in their schools, the mathematics HODs were more equivocal. Several noted that there is still anxiety and pressure from parents who want their children to study full NCEA courses, when the school's judgment has been that an alternative course would be of more benefit. This echoes some of the findings from the student questionnaire on the influence upon student subject choices of parents who have yet to come to grips with the NCEA as fundamentally different from School Certificate. On the other hand, one HOD noted that parents were happier to accept a "middle" course, where students study fewer achievement standards in the year, with the intention that they will complete the full Level One complement of standards over two years.

One HOD noted that students are still using terms like "cabbage", and that they still attribute lack of success to lack of work, rather than to gaps in their own knowledge or skills. He believes that the "cabbage" perception will change because unit standards do cover much the same content as achievement standards, albeit at a somewhat lower achievement level, and in more "bite-sized" chunks of assessment. Like one of the other HODs, he drew a distinction between the "applied" course at the lowest level of achievement and the "middle" alternative course, saying that the "cabbage" perception of the applied course was unlikely to change.

Issues of Course Structure and Standards

Several HODs commented on changes to the order in which they teach topics. One school is completing all the internally assessed standards first, leaving those to be assessed externally until as close as possible to the examination. The HOD in this school noted that the removal of geometry and statistics from the external examination may make it harder for those students who could build their confidence by completing these sections of the examination first. Another HOD noted that algebra has been totally removed from the alternative mathematics courses offered, because all except the most able students find this particularly hard. This HOD also noted a general narrowing of the content taught, saying teachers had become more focused on "teaching to the assessment", which she found sad. One HOD noted that mathematics is "more contextual" now—even in the full NCEA option.

The mathematics HODs were aware of impending further changes to the overall structure of course alternatives within the subject. Perhaps because the widest range of within-subject alternatives (three maths alternatives, as opposed to two alternatives in English and science) is already being offered in mathematics, these HODs were aware of likely flow-on changes at Year 12, as students passed some (and perhaps not other) parts of any of these three courses, necessitating even more complex Year 12 (or NCEA Level Two) arrangement to cater for them. One HOD noted that having to provide for students who are completing the balance of Level One standards in Year 12 will contribute to a "breakdown of year levels" within the subject, adding that changes will be needed in the school timetable structure to allow that to happen.

Possible structures for subsequent Year 12 mathematics courses are a source of considerable uncertainty at this point in the NCEA implementation. One HOD noted that students in his school used essentially to repeat the whole Year 11 course content if they did not pass School Certificate. Now, if students pass at least some standards, a new type of course will have to be offered. Possibly students will switch from unit standards to achievement standards that cover the same content at a higher level, but this has yet to be determined.

Two HODs worried that students who have passed some, but not all Level One standards may need to do "catch up components" in key areas in order to go on to Level Two. With this in mind, one expressed concerns about sequencing the Year 12 course before she has seen the specific achievement patterns of this year's Year 11 cohort. These will not be available until early 2003. The other HOD made similar comments, musing on whether it will be necessary to make major changes at Year 12 every year, or if the choices will "get easier as time goes on". Either way, this is a significant source of uncertainty at this stage of the NCEA implementation.

Four of the six mathematics HODs believe that the *types* of skills being assessed in Year 11 are already changing with the change in assessment regime. Such changes were linked to the internally assessed standards by three of the HODs. They noted that practical measurement had never been formally tested before, and that the practical components of statistics and geometry have become more important. One HOD regretted that increased use of calculators is leading to lower levels of understanding of numbers and estimation. She commented that such learning does not develop a sense of "sensibleness", and she also worries that the emphasis on problem solving is hard for students who have low reading levels. This HOD is of the opinion that sequential ordering is no longer emphasised, having been replaced by mind mapping, an omission which limits students' practical mathematical skills—"you don't have a mind map on an invoice. You run out of room."

In contrast to these four HODs, the other two did not believe that NCEA was changing the types of skills assessed, although they did concede that assessments are becoming more focused where skills are assessed internally. One of these HODs believes that the internally assessed components are easier for students to achieve, in part because more time is being spent on them. She saw the potential for some "dumbing down" where components have been removed from the external examination.

Five of the six HODs believe that the *level* of skills and abilities assessed will change. One noted that "excellence" content will form a higher overall proportion of the examination, because questions at this level will be spread across all nine standards, instead of being restricted to a few parts of questions. To achieve at the excellence level, students will be challenged to place much more emphasis on logical explanations for their actions, analysing the strengths and weaknesses of any method selected for problem solving. Such critical thinking is new at this level. Another HOD commented that students need to give two or more methods for their constructions now, which represents more detail than was required in the past.

One HOD thought that the level of skills and abilities assessed for "credit" has gone down in comparison to School Certificate. She also noted that a large number of the school's students will fall into a wide "merit" band, and she suggested this will be very discouraging for those who enjoy being competitive. This HOD said she was a competitive student herself, and she sympathised with this concern. It was a key part of her "philosophical" objection to the whole NCEA development. However she also cited an "equity" objection—some students get help at home when their internally assessed tasks are spread over several days. Some have home computers with various forms of learning support. Access to computers at school is an issue, so students experience inequalities that impact on the work they can produce as evidence of learning.

Meeting Teacher Needs

Two of the mathematics HODs noted the need for different types of equipment to carry out exemplar activities. There are associated cost implications, and one HOD said that such tasks needed to be modified because the department operated on a limited budget. One HOD commented on the necessity for practical tasks, such as measuring, to be carried out by pairs of students, worrying that this might mean they are not being assessed on "their own work".

Like their English colleagues, the mathematics HODs have looked to the MOE/NZQA exemplars for guidance, although two of them noted that the support would not "continue forever"—as one of them had already experienced when unit standards were introduced. Another commented that the exemplars are "flawed" and need reworking. For example, the language used is often too complex for students, so some rewriting is necessary. This HOD noted that she spends a lot of time checking the Internet for new resources and talking her staff through the exemplars she downloads, making sure they come to a shared understanding of both the teaching and the assessment required. The schedules still require a level of teacher judgment, and moderation is a time-consuming challenge. The HOD noted that they were expected to liaise with another school, but she said they simply did not have the time, and she worked with a skilled team, so it was more productive to focus on working internally. (In a similar vein, this HOD would prefer to spend Jumbo Days[12] working with her team at school, rather than attending a regional meeting.) One HOD commented on download times and expressed a preference to be sent written material.

Some mathematics HODs are feeling undervalued professionally. Several noted that the amount of work involved was huge, with HODs referring to staffing being "stretched", teams being short of staff, and needing more help with planning. One HOD noted that the entire focus of Jumbo Days was on the NCEA itself, whereas this is only one part of the broader qualifications framework. While money is not the prime motivator of teachers, one HOD did feel that their goodwill was being taken for granted at present. A practical result of this is that "incompetent teachers are getting jobs because we can't get anyone better". Another HOD described the NCEA implementation as a "lightning rod" for workload issues that were already present.

Describing a different aspect of staffing dilemmas, one HOD noted that older teachers within the department have had to re-examine the way in which they teach, which has clearly been challenging both for them and for the HOD's leadership. Some of these teachers, nearing retirement, have dropped any additional responsibilities they may once have held within the school, and so have heavy teaching loads that leave them little time to reflect during each "full-on" day. The HOD felt that they "will walk away if criticised" and was clearly anxious about retaining experienced teachers, yet still challenging them to move their thinking on assessment and learning.

One HOD reported a situation where a teacher had needed to take stress leave when her class performed poorly on one assessment task in relation to the other classes at Year 11. She felt her competence was being directly compared with that of other staff, whereas the HOD was more inclined to see the discrepancy as one of interpretation of criteria—described by the HOD as "technical details". While moderation meetings are working through such issues, this HOD is concerned about the additive effects of the introduction of Level Two standards next year, and about how staff will cope with the full mix of all three levels the year after. Both the HOD and the staff feel they need to take things "year by year", and two other staff were close to needing stress leave at the time of the interview. Notwithstanding these anxieties, the HOD was adamant that the whole mathematics team was essentially positive about the assessment changes—their chief anxiety centred around their own professional ability "to deliver the changes to the standard we want to".

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[12] These are regional day-long workshops during which secondary teachers come together in subject groups to work with each other and with a regional facilitator. The broad purpose of these days is to increase teachers' familiarity with NCEA structures and procedures, and to increase professional skills in standards-based assessment, especially as this relates to the subject-specific achievement standards.

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Science HODs

Teaching Experience

Between them, the six HODs interviewed taught in all the main science discipline areas:

- science (6 HODs);
- physics (2 HODs);
- biology (2 HODs);
- chemistry (1 HOD);
- horticulture (1 HOD);
- alternative (NZASE) science (1 HOD);
- biotechnology (1 HOD).

The number of years spent by HODs in their current school ranged from one to 32, with one HOD having recently returned to a school after some time in a different area. Only one did not currently teach a senior science subject specialisation. This HOD was concentrating on Year 10 and 11 classes as NCEA implementation procedures are being developed within the school.

Subject Choice and the Challenge of Meeting Student Needs

Perhaps because science splits into several option lines at Year 12, these HODs were particularly conscious of the need for students to have a clear view of the impact of their decisions about Year 11 course options on the subsequent years of their school study. There was also more concern that students were making choices without necessarily having access to the medium-term picture. Several HODs mentioned the importance of choosing courses that would not unintentionally constrain future choices.

In five of the six schools the students' choice was, in any case, simply a matter of deciding between a full NCEA course and the alternative NZASE course. The HOD of the single school where science is not compulsory expressed the view that making it so would simply constrain students' other choices, since they only take five subjects at Year 11. One other HOD told us he felt "under pressure to capitulate" in debates about making Year 11 science optional in his school, so that the students could make more of their own choices. He worried that this would "close off options"—already noted as a common theme of this group of HODs.

Science divides into a number of options at Year 12. While these different discipline options have some similarities, they do also draw on different types of discipline knowledge and skills. Faced with this diversity, students who want to continue studying one or more sciences, or who are forced to choose between the available options because of timetable constraints, may base their choices on perceptions of their ability in or enjoyment of the different science disciplines. One HOD expressed the view that NCEA will provide additional information to assist students in making such choices, because they will get achievement information that is discipline specific (as opposed to one "blanket" examination mark).

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Two HODs expressed the view that giving time to the most able students in their Year 11 classes was a challenge. One solved the dilemma by providing lunchtime classes for such students. Another wryly commented that while able students are a "better return on the time invested in them", they tend to get less of the teacher's time and attention overall. On the other hand, one HOD worried that the current restructuring of courses will actually polarise students of widely differing abilities in science, a comment that echoed the "streaming effect" worries of the principal of City School A.

Several HODs commented on the amount of information that is now provided to students, saying that this was almost an overload and confusing for some. One worried that the students are now overloaded with work because of the frequent internal assessments they face.

Issues of Course Structure and Standards

While most of the science HODs say they are taking the first year of NCEA quietly, between them they are already exploring a range of options that the new assessment regime has opened up. Actual or proposed course modifications and choices that individual HODs described include:

- looking at a mix of achievement standards and unit standards to get a more "focused" course at Year 11;
- removing the earth science component from Year 11 science because "it is already taught in geography";
- introducing extra standards for more able students;
- assessing the topics of genetics and micro-organisms using two Level One biology achievement standards, because these add up to one more credit than the equivalent course content covered by one Level One science standard—and because the split into two gives students separate opportunities to achieve in these quite distinct topics;
- introducing a "social science" course that mixes some components of social studies and science;
- introducing a more contextually based course that could focus students on learning science with a post-school employment focus.

The HOD who very tentatively raised this last idea immediately pondered its desirability, noting that such courses are "resource hungry" and in any case are already available in the senior secondary school. "Are we better to stick to the core subjects at this level?" he asked, echoing a concern that was expressed in every school we visited.

All six HODs reported that they are offering science achievement standard 1.1—the internally assessed standard for investigative skills. Four of them felt that this was assessing a component of student achievement that had not been assessed in the past. The two HODs who disagreed with this had both previously offered internally assessed modular science, and so felt that they already assessed investigative skills well. One of these two HODs regretted that there were insufficient credits available for internal assessment of scientific skills, because "that's what science is all about". Another HOD expressed the desire to see a more open process for assessing investigative skills—"like a science fair"—while acknowledging that this would make moderation very difficult. However, the same HOD also expressed appreciation for the structure of achievement standard 1.1, saying it was "well thought out". In several schools, the practical assessment was going to be carried out under examination conditions. One HOD was worried that the students would "panic" during the practical assessment and achieve poorly as a result.

The science HODs are alert to the possibility that their students can achieve extra credits by being assessed for the investigative skills strand in two different science disciplines. One HOD described students being able to get "lots of credits" because of this. Students in this HOD's school are going to be assessed for the first time "at the end of Year 10", using achievement standard 1.1 in science, then again during Year 11, using biology 1.1 as the context. As noted in the discussions with the technology HODs, this possibility is not available for technology courses in different materials, a discrepancy that those HODs note as unfair.

Only two of the six schools are offering achievement standard 1.2—research skills—this year. One HOD felt that the school "does not have the resources" that students would need if they were to carry out the research tasks as specified. However, one of the HODs who has introduced this standard noted that 70 percent of the students achieved the standard, whereas in the past 50 percent might have achieved any course component examined externally. This HOD noted that "teacher inexperience" had contributed to a situation where few students achieved above credit level, but he clearly saw this as a situation that could be rectified the next time the same assessment was carried out.

Four of the six HODs believe that the introduction of the NCEA will make a difference to the levels of skills and abilities assessed. Reasons they gave included:

- there is more emphasis on these now, and students get a chance to practise and improve;
- there is a bigger focus on formative assessment of skills, and students get specific feedback about their achievement;
- practices are showing students what the expectations are for excellence, allowing them to improve their skills;
- students "can't get away with a random collection of the 50 easiest points", as was the case in School Certificate;
- excellence questions probe more deeply than recent School Certificate questions.

Meeting Teacher Needs

One HOD commented on the difficulty he faced in replacing experienced staff. In his view, the calibre of new staff is falling—science teachers coming in to the school are not as dynamic and do not have good management skills. This HOD worried about the impact of that on student choice, because "their history of the subject" influences Year 10 students when they make their Year 11 choices, and those choices in turn impact on the choices they can make at Years 12 and 13. Another HOD commented on the number of provisionally registered teachers on the school's staff. This creates issues for the HOD, in that their relative inexperience means that they have not yet honed their ability to accurately judge student achievement, and they need constant supervision. A third HOD

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commented on the difficulty of getting qualified and experienced support staff to assist with preparation of materials for internal assessments of practical activities. Like some of the other HODs, some of this group see workload as more of an issue for them than for their staff because of leadership issues, including the necessity to run frequent moderation meetings so that the staff can reach a shared understanding of evidence of student achievement.

Workload issues are of concern and the science HODs are torn because they can see real benefits for students in the NCEA. One HOD commented that examinations were much easier for teachers to manage, but added immediately after this comment that he could see the real benefits of NCEA in terms of flexibility and feedback for the students.

One HOD commented philosophically that the course rewrite was a "lot of work but it needed doing anyway". One reported that the exemplars on the Internet are easy to access and download, but another HOD said that download times in their school were very slow, leading to frustration, and the danger of "teacher burnout". A fourth HOD who was already very experienced in standards-based assessment was much more relaxed, seeing the NCEA as "just another national certificate".

Arts HODs

Teaching Experience

In terms of what they actually taught, the six HODs interviewed covered the subject areas of:

- music (3 HODs);
- photography (2 HODs);
- art (1 HOD);
- media studies (1 HOD);
- performing arts (1 HOD);
- computer studies (1 HOD).

The HODs covered a range of number of years teaching within their schools, from 2 to 24 years. Most of them taught from Year 9 through to Year 13, giving them a good overview of the development of students in their subject areas.

Subject Choice and the Challenge of Meeting Student Needs

The HODs who taught music were particularly concerned about the prerequisite knowledge and skills required for students to be successful at Level One NCEA. Compulsory classes at theYear 9 level in one school eased the difficulties somewhat, but could not entirely compensate for what these teachers felt were overly high expectations of students in Year 11 music. One HOD pointed to composition as a particularly difficult area of the Year 11 curriculum for students who lacked prior experience or knowledge. Year 11 expectations and high standards were highlighted by one HOD, whose school had a prerequisite of either Year 9 *and* Year 10 music, *or* private (non-school) tuition for *two years*. Even this did not, in her opinion, ensure a smooth transition to Year 11 level music. As another HOD pointed out, for students with many option choices at Year 9 and

Year 10 level, the prerequisite requirements for taking arts subjects sometimes acted to prevent them from doing so at Year 11 level. One other HOD cited a prerequisite system for arts subjects which was frequently compromised by students who moved into the school at Year 11 level.

The types of students taking arts subjects were generally thought to be a mix of the creative and the less academic, with some (fewer) academically achieving students. One HOD felt that her school's lack of choice for students made the arts even more important as an outlet for creative students. Another HOD suggested that he was able to generate interest from even the most "incapable" students, since they received a lot of individual attention that they rarely received in other classes. He saw his role as being one of confidante as much as a subject teacher, since his subject and his approach tended to be more relaxed than in other classes. The arts featured highly as an area influenced by subject teachers in terms of subject choice (see Student Views section).

Timetabling was a concern, insofar as it was related to the relative lack of importance accorded the arts in schools. Two HODs cited timetable clashes as making arts choices difficult for students who were "prioritising" among the number of option choices open to them. Another HOD mentioned the desirability of combinations of arts subjects, or arts and languages subjects, that were simply not possible within the school's timetable structure. This was perceived as an example of limited thinking in turn limiting students. Music was seen as marked by the long-standing division between academic and non-academic subjects in schools, constraining "very academic students who are often very musical". In these instances, one HOD saw parents as the culprits, stating that they discouraged academic students from taking arts subjects, perceived to be unnecessary for the particular pathway of high achievers at school.

The issue of parental (dis)encouragement was raised in relation to the demands of the Year 11 music curriculum and the relative place of music in the "pecking order" of subject homework. One HOD felt that parents themselves needed educating about the significance of the arts. Parents readily understood the need for study when it came to core subjects, for practice when it came to sports, and for after-school job responsibilities to be carried out, but this understanding and encouragement was rarely extended to the arts. In turn students picked up this attitude, and the desire to become an actor or rock star, without any real work needing to be done, was reinforced.

Two HODs suggested that students in rural schools faced "serious disadvantage" throughout the arts, because they could not attend exhibitions or performances like their city counterparts. Organising attendance at these events created enormous timing and transport difficulties for rural schools. Visits to local arts establishments were also difficult, since rural-based arts tend to be small businesses, often sole charge, with owner-manager-artists typically focused on the immediate concerns of their business, with little time to spend with students. One HOD maintained that arts teachers had to be very proactive, and this alone was exhausting for them.

A concern held in common by most of the HODs was that of competing for space among the other subject options for students. The arts, encompassing a number of non-compulsory subjects, were felt to be perceived by students, their families, and other school staff, as of lesser importance than other subjects, particularly the core compulsory ones (important by virtue of being compulsory). None of the HODs were suggesting a change to compulsory subject organisation, but several did suggest that arts subjects suffered the double-whammy of being neither core compulsory nor perceived as important in terms of future career. On this latter point, however, it is interesting that so many students in the questionnaire across all schools responded by placing the arts near the top of the list for subjects influenced by career aspirations or concerns. However, another HOD claimed that while some students choose the arts for career reasons, few actually go on to careers in the visual arts after school.

Issues of Course Structure and Standards

Overall, arts HODs appeared more likely than other HODs to think the NCEA could "dumb down" students. One of these HODs thought that the standard or level of achievement was being raised by the NCEA for the "bottom" students; however, the top students were being brought down, and achievement in the HOD's subject was generally more mediocre. Another HOD claimed that the achievement standard of excellence was too close to perfect and extremely difficult to get in music. The HOD also felt that students were not achieving as well with the change to the NCEA this year, and found this partly due to having few exemplars for assessment, making the "new mindset" of achievement standards difficult to work with. This HOD also suggested that she and her students were very unclear as to the meaning of the achievement standards of credit, merit, and excellence in terms of the subject of music. The HOD claimed that students and teachers alike had felt more comfortable with the gradations of scores in School Certificate. This HOD was struggling with the problem of making judgments about the levels of passes for achievement standards (credit, merit, or excellence) in activities such as composition in music.

Two HODs suggested that a risk of "dumbing down" came with the potential to allow students to do only what was comfortable for them among the various units in the course. However, another HOD saw that this subject structure allowed students, particularly the less academic ones, to focus more consistently on achieving discrete units, thereby actually raising the standard of achievement generally. Another HOD pointed out that the arts was often the only subject area that some students achieved in. Several HODs felt that the new NCEA structure of the subject allowed students to showcase their work more, with a greater emphasis on quality over the quantity emphasis of School Certificate, which they felt was not suited to arts subjects.

In terms of the *types* of skills and abilities assessed in relation to the NCEA, some HODs felt that internal assessment was wrongly perceived as easier than examinations or external assessment. The emphasis on performance throughout the year was seen as beneficial for the students. However, that same emphasis was seen as creating resourcing and workload issues for some arts teachers, who faced having to document student performance, often through taping and videotaping.

Meeting Teacher Needs

One HOD felt that the NCEA was over-formalising the arts and reducing the enjoyment factor. This HOD argued that where he was previously able to "throw ideas to students who evolved them beyond what was expected or thought of by the teacher", he now felt students were "capped" by having the requirements of unit standards and achievement standards spelled out so explicitly for them. Despite the fears of reduced enjoyment for "capped" students, the student questionnaire does show that, for the arts subjects, personal enjoyment is still a major influence for students to take the subject. There remains a possibility here that, with the NCEA, enjoyment is reduced for *the teacher*, whom this HOD described as being "gagged and bound". This is an interesting issue in the context of concern centred upon *student needs* in this study and the majority of other studies in New Zealand schooling and education currently. Given current concerns over teacher supply and work conditions, the issue of *teacher needs* might benefit from deeper research attention.

Technology HODs

Teaching Experience

In terms of what they actually taught, the six HODs interviewed covered a wide range of technology related subjects, some generic and some highly specialised:

- graphics (3 HODs);
- technology (2 HODs);
- hard materials technology (2 HODs);
- workshop technology (1 HODs);
- electronics (1 HOD);
- design technology (1 HOD);
- information management (1 HOD);
- furniture making (1 HOD).

Other technology subjects within their schools (but not taught by these HODs) included: food and nutrition, food technology, fabrics and design, automotive technology, practical woodwork, fabric technology, home economics, materials technology (wood), materials technology (metal), structures and mechanisms, and biotechnology.

Most of the HODs had been in their schools for between 10 and 22 years. One was new to his school in 2002. Most of them taught from Year 9 through to Year 13, giving a good overview of the development of students into their subject areas.

Subject Choice and the Challenge of Meeting Student Needs

Several HODs mentioned the breadth of the subjects in technology as a strength, in that students had opportunities to "discover talents they never knew they had". Another HOD believed that the multi-level opportunities within the school allowed students to "mix and match" to better meet their needs. Several HODs pointed out the importance of teachers or deans having knowledge of the students and, in particular, of their behaviour. Technology, more than most other subject areas, is subject to health and safety concerns. Inappropriate student behaviour in a classroom or workshop containing machinery can be dangerous, both to that student and to others. In those cases, personal knowledge of students is vital to ensuring the safety of all students (and the teacher). In one example of problematic decision-making about student suitability, the dean was seen to be making judgments based on academic results that saw academically successful students *discouraged* from taking technology classes. In another example, the identification of students and knowledge of their abilities and interests in relation to technology were made difficult through a high turnover of deans at the school.

The issue of what kind of subject area technology is—academic or non-academic—was raised by some HODs, who pointed to a tension between traditional conceptualisation of technology-based subjects and more recent incarnations of technology, particularly in terms of the NCEA. The perception of technology being for students who have not achieved or will not achieve academically has altered significantly over the years, as popular culture and technology have become more interconnected and traditional trades have changed form or, in some cases, disappeared. One HOD felt that parents, in particular, were slow to understand or recognise that technology was no longer trades training, and that it offered students good pathways into further study and careers in recognised fields such as architecture, design, and engineering.

In terms of students actually choosing technology subjects, several HODs expressed concern over the number of compulsory subjects and relative limiting of the number of subject options available from which students could freely choose. They suggested that there might be fewer core compulsory subjects, perhaps only two or perhaps none at all. Two HODs also stressed that students needed guidance to assist with making subject choices. One cited school plans to involve parents more in the decision-making process, with careers evenings spread over several months. Several other HODs were unsure what students actually wanted or expected in technology courses.

Issues of Course Structure and Standards

Several HODs agreed that the NCEA has recognised and reflects technology's newer status and shape to some extent, one saying the NCEA had been designed "in the spirit of the technology curriculum", and another saying the NCEA fitted "beautifully" with technology. However, HODs felt that this was a double-edged sword. On the one hand, several HODs believed that technology now had the potential to appeal to more "arts-minded" students and break down hierarchical barriers between subject areas. One example cited was of a community which persisted in expectations of traditional outcomes and trades training from technology, but had started to accept technology specialist subjects such as food technology, electronics, and fabric technology. On the other hand, the new structure of technology was seen as resulting in an intellectualisation which disadvantaged students taking technology subjects for more traditional reasons, as a non-academic option and as one of the few places they could succeed at school.

Two HODs found the technology curriculum in relation to the NCEA constraining. One HOD explained that although his school offered several technology subjects at Year 11 level, NCEA achievement standards were available only for one technology subject. This meant that students wanting to study design across different materials (as separate courses) could not get credit for it. As the other HOD pointed out, this situation differs markedly from that of the science curriculum. Students are able to obtain credits for a similar unit, "Carry out a Practical Investigation with Direction", within the subjects of science and biology on the basis that the investigative skills employed are distinct for each subject. This kind of "double-dipping" option is not available in technology, though one HOD clearly felt that the technology curriculum actually called for distinct judgments and skills related to the materials being used within different subjects, and the other HOD questioned the validity of the assumption that materials skills were held in common across subjects.

The double-edged sword of technology's structure also spilled over into the assessment area. Several HODs spoke of the NCEA improving outcomes for students, particularly where there was more internal assessment of work in the form of portfolios which, in the eyes of one HOD, was previously and inappropriately subject to a "ludicrous" examination. This HOD, pleased with the fit between the technology curriculum and the NCEA, appreciated the clarity of standards setting out what needed to be done to achieve at the level. He found that it allowed students to go into their work in greater depth and be more creative about finding solutions to specific design problems. In his opinion, it was quick thinking, rather than these creative solutions, that was measured in examinations.

Most HODs saw the technology curriculum as more challenging for students, in that more academic skills were now required to be successful in technology subjects. Where written work had been minimal, it was now closely related to achievement standards. The previous emphasis on problem-solving in quite practical ways was now made more complex, through the requirement of an action plan or brief. This was seen by one HOD as making technology subjects more attractive to academically-inclined students. Another HOD suggested that students could become "more well-rounded" with this new approach.

However, several HODs were also apprehensive about the extra dimension of planning that featured in the curriculum and achievement standards, which had the potential to be too difficult for many students. One HOD believed that students were resisting the planning and research aspects within the technology subjects, though he hastened to add that most subject areas had an increased research component now. However, he also made the point that technology subjects had long catered for "the low end students" within the school, and this was no longer the case. How relevant were achievement standards for those students? He suggested that unit standards were the best way to assess the skills of such students.

A related concern over the "intellectualisation" of the technology curriculum, and the focus on *working through processes*, rather than checking a product, was that the particular skills of making and creating were de-emphasised and no longer assessed to the same standards as before. There was a sense of a loss of *craftsmanship*. As one HOD put it, "there will be less mastery of practical tools and processes". This was seen as a disadvantage for students who "learn by doing". Another HOD suggested that practical skills would simply not be assessed as deeply as they could or should be.

Summary

Generally HODs were supportive of the NCEA in terms of its principle of crediting students with what they did know or could do, rather than what they did not know or could not do. However, HODs were concerned about changes to *what* was assessed and *how* it would be assessed. The arts and technology HODs had particular concerns over changes to the place of their subject in relation to other subjects in the school curriculum. The implicit hierarchy operating in schools values academic subjects more highly, and the disturbance to this hierarchy created by the NCEA has quite different implications for the arts and for technology.

The arts HODs raised the issue of "dumbing down" more than other HODs. For the arts HODs, "dumbing down" was a real possibility, created out of the existing context of arts subjects not being compulsory, the arts being the last of the areas of the curriculum to be developed, and timetabling which disadvantaged the arts. In fact, the "dumbing down" concerns of the arts HODs might better be described as a concern over the potential flattening out of student achievement, prompted by what they worried were overly high definitions of the level of "excellence" in achievement standards for arts subjects. They saw a potential for more students to achieve at a "credit" level, but less at an "excellence" level, in comparison to relative School Certificate marks.

Technology HODs had an almost opposite concern. Students who have been the traditional takers of the technology subjects are now being challenged with a more academic content and structure. The creative possibilities of this both attract and concern technology HODs, who can see the benefits of a greater emphasis on planning and research, but also rue the loss of traditional values and skills associated with craftsmanship in technology subjects. They expressed interest in the new potential for academic students within their subject and the subsequent raising of technology's status within the curriculum. However, they also expressed unease over the potential demise of a place where the least able students could be sure of some form of achievement.

The increased workload associated with the implementation of the NCEA was an issue raised by most HODs interviewed. A number of HODs mentioned specific areas where they struggled to know how to best make the NCEA work for their subjects. They cited a lack of exemplars generally, as well as difficulties accessing and downloading exemplars from websites. They explained their attempts to seek help through Internet listserves and discussion groups, and face-to-face planning and moderation meetings. Above all, there was a heightened awareness of the change in mindset required of them—from School Certificate and normative assessment to the NCEA and standards-based assessment—and their responsibility as HODs. This shift in mindset was also something they were aware of promoting among the other teaching staff within their own departments.

The responsibility of HODs in relation to the NCEA extended to raising the issue of how to deal with students achieving some but not all possible credits at Level One, and going on to Level Two in some areas, but not others, within a subject. This issue was something which most HODs admitted was yet to be fully understood, let alone resolved. However, the implications for subject choice and subject and class organisation at the Year 12 and 13 levels is already apparent to many HODs. Moreover, there are concerns about the availability and cost of resources which may be needed to facilitate high-quality teaching and smooth learning transitions for students who will be completing different levels within the one subject.

SECTION SIX: STUDENT VIEWS ON SUBJECT CHOICE

Student Questionnaire Responses

In total, 729 students responded to the student questionnaire, a response rate of 73 percent. The smallest number of returns was 90 completed questionnaires from City School C, and the largest was 171 completed questionnaires from Town School E.

Trends in Year 11 Subject Choices

Compulsory Courses

In all six of the case study schools, the three main core subjects provide "choice" via a series of graded options.

Mathematics: either standard (NCEA oriented) courses or adapted (largely or partially NCES oriented) courses in mathematics are compulsory in all six schools, with three different ability levels of course combinations offered in five of these schools.

English: either standard (NCEA oriented) or adapted (NCES or Practical English Certificate, or combinations of these) courses are compulsory in all except City School B, where students can choose between English and Māori as their compulsory language. In contrast to mathematics, only two different ability levels of course combinations are offered in all six schools.

Science: either standard (NCEA) or adapted (NZASE Certificate in Science—in combination with NCES in some but not all cases) courses are compulsory in all except City School C, where only the standard (NCEA) course has been offered and is optional in 2002.

Physical education: compulsory for less academic students in City School A, and for all students in Town School E. A combination health/PE course is compulsory for all students in Town School F.

Popularity of Different Curriculum Areas

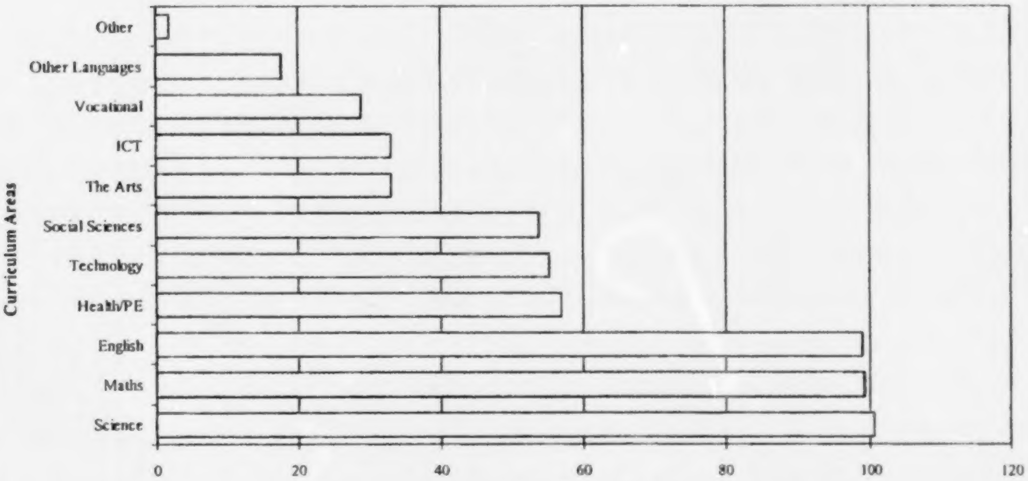
Figure 7 summarises the subject choice data by curriculum area for all students who completed the questionnaire. The high numbers of students taking the core subjects reflect their compulsory status in most cases.

Science registers as slightly more than 100 percent because, although not compulsory in one school, a number of students take science and one other science option. Horticulture is offered in all three town schools, and in one city school. Biology is offered in addition to horticulture and science options in one town school.

After the core subject areas, the most popular optional subjects are in the curriculum areas of technology and the social sciences. Other languages (languages other than English) are taken by the smallest proportion of students in every case study school.

Figure 7

Student Participation Across the Curriculum



Percentage of students taking subjects in each curriculum area

Note: some students took more than one science subject.

Popularity of Actual Subjects

Figure 8 separates actual subjects within curriculum areas to show the 12 most popular subjects across all six schools. After the core subjects, transition courses are the most popular, followed by history, technology and information management (TIM) and graphics. Accounting was offered by four schools, and transition (or careers) was a full option choice in three. The other popular optional subjects were offered in all six schools.

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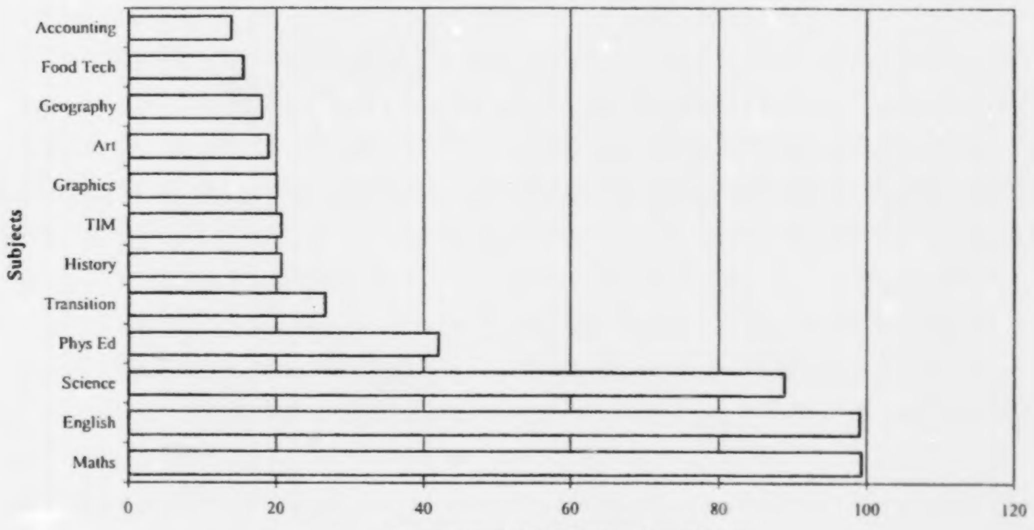
Figure 8

The Top 12 Subjects



Percentage of all students taking subjects

Influences on Subject Choices

Figure 9 summarises students' perceptions of the factors (and in some cases the people) that influenced their Year 11 subject choices. Students could select multiples of influencing factors and many did so. Responses concerning each influencing factor were collated separately by subject. Only subjects mentioned by more than 5 percent of students for a specified factor are reported here.

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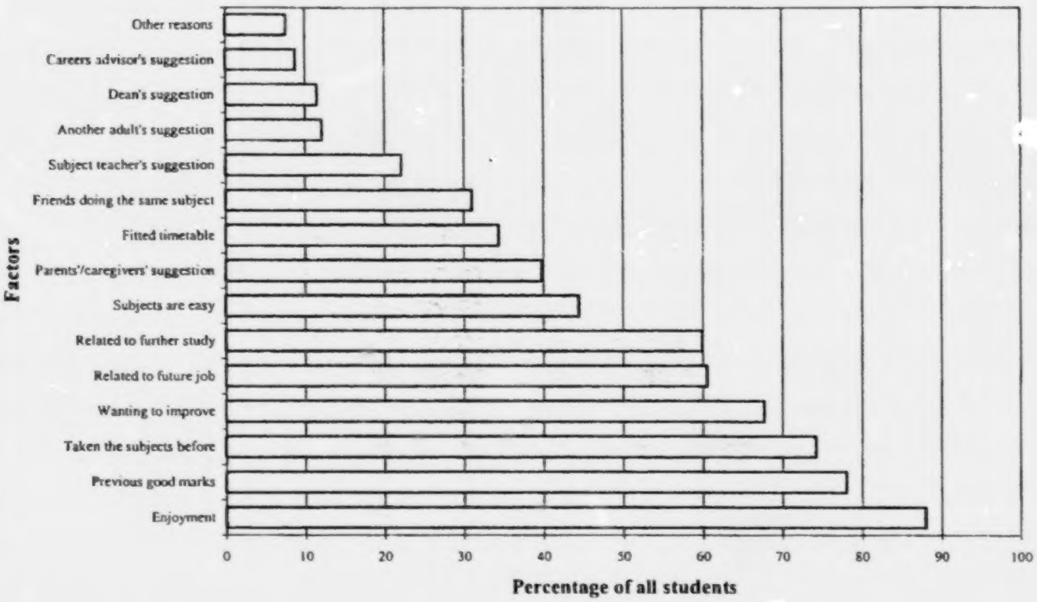
Figure 9

Factors Influencing Student Subject Choice



Overall, students perceive that personal enjoyment has exerted the greatest influence on their choice of Year 11 subjects. This factor ranks consistently ahead of all other influences and reasons, and was indicated in three different ways within the questionnaire:

- in the actual subject choices made (a positive influence);
- in avoidance of particular subjects (a negative influence);
- in terms of an expression of interest in other subjects not offered at the school.

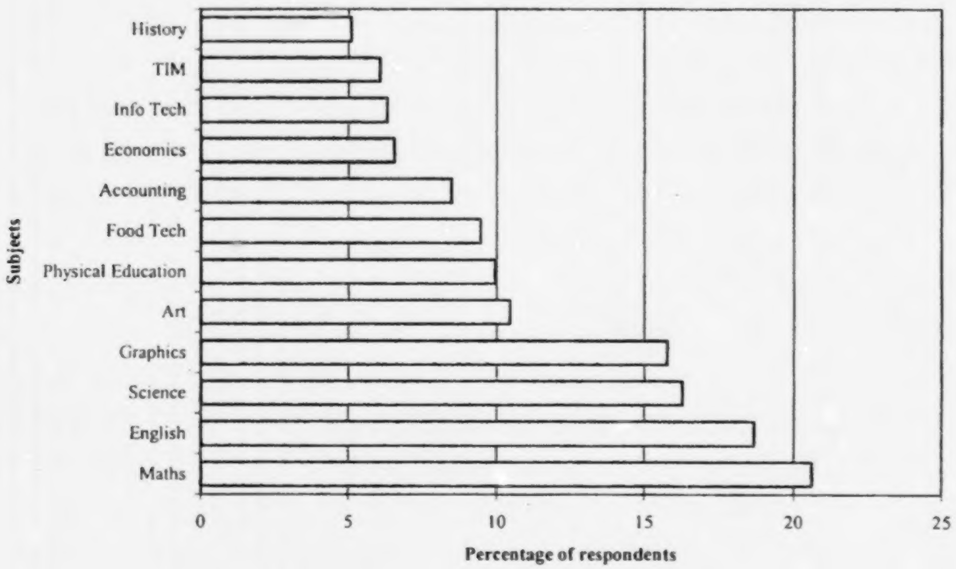
Other major influences on subject choice include having attained previous good marks in the subject, having taken the subject before, and a desire to improve in the subject. It is significant that the suggestions of deans, careers advisors, and subject teachers did not rank highly in the decision-making process, and that the influence of parents was ranked more highly. This is discussed in more detail later in this report. However, it should be noted that a possible reason for this, when read alongside all the other influences cited by students, is that students had more than half of their Year 11 programmes already determined for them through core compulsory subjects. Because of this, the remaining option choices would not necessarily have required any specific advice or generated much comment from school staff, particularly if the student's option choices were perceived by school staff to be "on target".

Perceptions of Links to Future Careers and Study

A total of 402 students indicated that future career plans had influenced at least some of their subject choices. Clearly, some subject choices are more strongly influenced by future career desires and plans than others. Reflecting their compulsory status in most instances, the core subjects are understood by many students in all six schools to be an important foundation for their future career choices.

Figure 10

Influence of Future Study on Subject Choice



Graphics and art are the optional subjects most strongly linked to future career options. Subjects more traditionally associated with careers or work beyond school—text and information management (TIM), food technology, and accounting—also featured strongly. The popularity of graphics as a subject that is seen to have strong career prospects may reflect the growing influence of, and interest in, a confluence of popular culture, media, design, and technology. This may also partly explain the considerable interest in art ahead of the more traditional "career subjects", in that it has a relationship (though not a simple one) with graphics. The art world has also received considerable publicity in recent years through increases in government funding, the introduction of WINZ subsidies and benefits for artists, and work generated through such large-scale productions as the first of the *Lord of The Rings* film trilogy. In addition, two of the schools in the study were located in communities strong in the arts generally.

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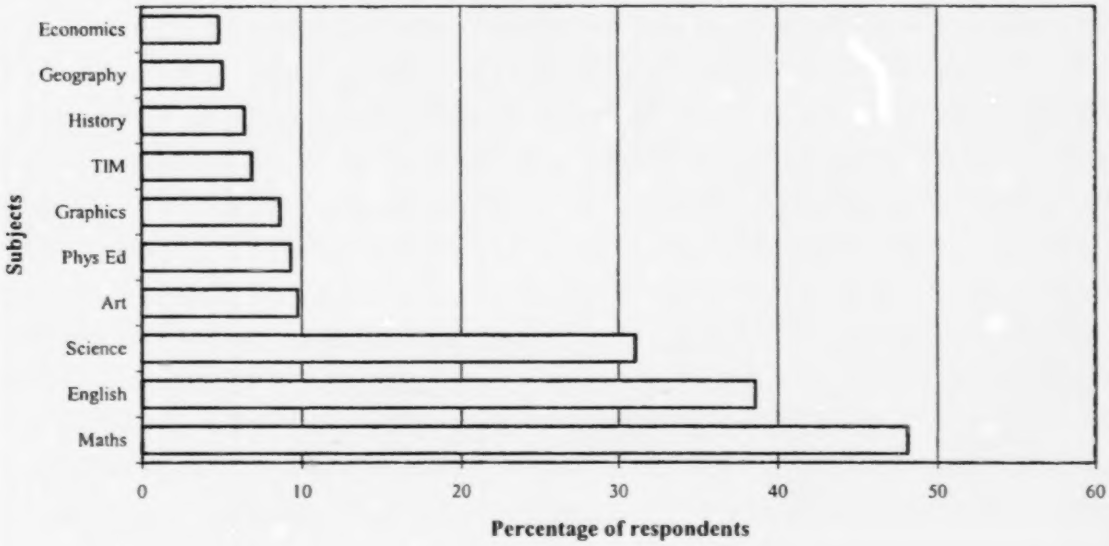
Desire to Improve in a Subject and Influence of Previous Marks

There were 451 responses indicating a desire to improve as a reason for choosing a specific subject, although some students nominated several subjects in response to this question. Figure 11 captures this data, again reporting instances where 5 percent or more of the responding students indicated this influence on their subject choice.

Figure 11

Influence of Desire to Improve on Subject Choice



Students most frequently cited a desire to improve in the core compulsory subjects, nominating these in the same order as perceptions of their importance for a future career (mathematics first, English second, science third, and PE a more distant fourth). Clearly, all the students who made this response saw the choices of options within the compulsory subjects[13] they nominated as decisions of considerable importance for their school progress.

The next most frequently cited subjects for desired improvements were graphics, technology, text information management (TIM), and history, also subjects popularly cited for career influence. Art was the exception to this strong link between career emphasis and desire to improve in the subject.

Figure 12 shows the subjects that at least 5 percent of the 535 responding students indicated were chosen because of attainment of previous good marks. Again, the core compulsory subjects are most often cited—in this case influencing what is in effect an option choice between NCEA/NCES oriented versions of the subject. This pattern correlates strongly with HOD reporting that records of Year 10 attainment are used to strongly counsel students into particular option choices, especially in mathematics and English, and to a lesser extent in science. This influence appears to be strongest in Town School E, as the school effectively streams students into one or other of a pattern of linked courses, according to marks attained in all three subjects during the previous year (Year 10).

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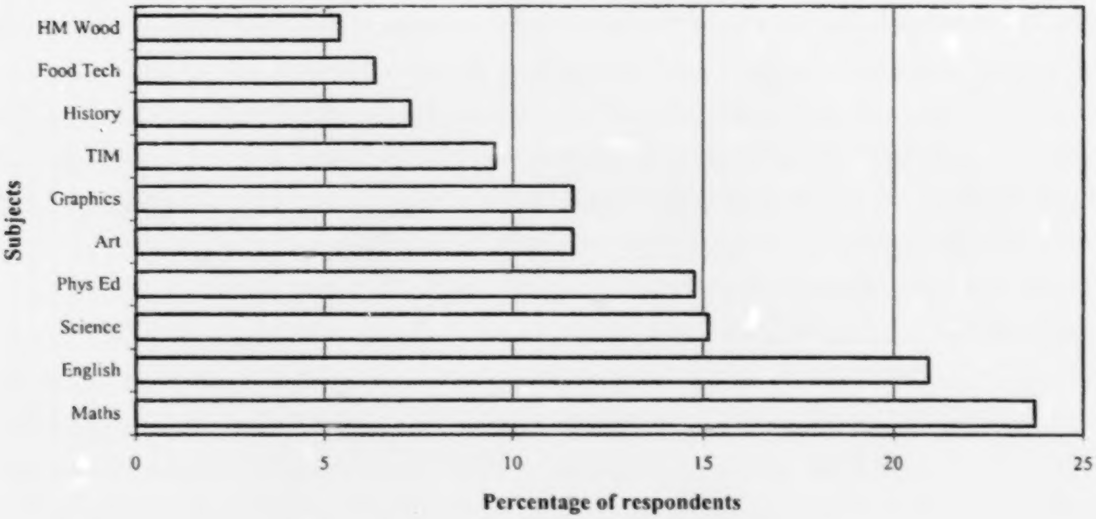
[13] The "choice" students have over the compulsory subject options (e.g. English or Alternative English) varies in each school from having no choice and being placed in a subject to having a choice that may be checked by deans.

Figure 12

Influence of Previous Marks on Subject Choice



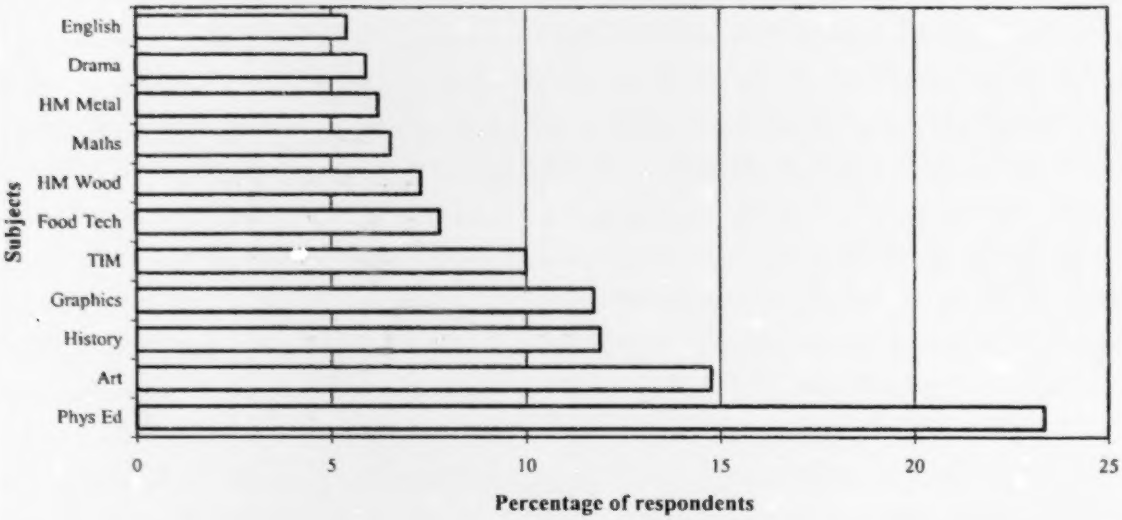
The Influence of Subject Enjoyment and Perceived Ease of Subject

This was an area where patterns of choice were not straightforward. Although personal enjoyment features as the single most important influence on subject choice overall, students do appear to weigh this carefully against other factors. The data reported here indicate that perceptions that a subject will be "easy" are not necessarily directly correlated with expectations of enjoyment, although for some subjects this association does appear to hold. Figure 13 shows subjects where at least 5 percent of the 630 responding students indicated that their choice was influenced by the expectation of personal enjoyment. As for previous data, the combined responses have been used to calculate percentage responses per subject.

Figure 13 shows that the subject most influenced by personal enjoyment was physical education. This subject is compulsory for less academic students in City School A. Given the expressed reservations of some staff in that school about the limited number of option choices for less able students, it may be that this is one area where they are enjoying comparative success. Figure 14 (with 307 responding students) certainly shows a clear expectation that this will be an "easy" subject. Physical education was the subject by far the most influenced by a perception of "easiness" in student subject choice. It is also worth noting that PE is compulsory in City School E, which offers the subject in two forms—one of them for students really keen on sports.

Figure 13

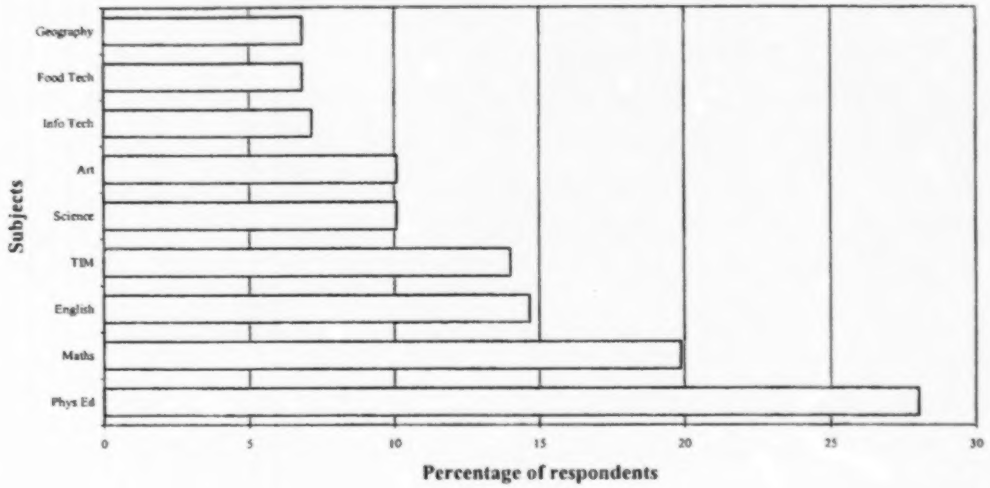
Subject Choice Influenced by Personal Enjoyment



Although art ranks highly as a subject related to future career choice, personal enjoyment and personal good marks, it did not rank so highly for "ease". Neither did some of the other subjects which were ranked highly for personal enjoyment. History and graphics, for instance, are both absent from the "easy subject" data (Figure 14), while featuring as being influenced by enjoyment. This suggests that students may be making a carefully balanced distinction between subjects they enjoy and subjects they can do with relative ease. For at least some students, it may be that personal enjoyment is positively linked to academic challenge. This possibility will be pursued when we interview individual students from each of the six schools during the second half of the year.

Figure 14

The Influence of Easy Subjects on Student Subject Choice



The Influence of School Staff

Overall, students did not perceive school staff as helping them with their subject choices, despite the considerable efforts of the various schools, as detailed in the individual school profiles. It may be that the complexities of subject choice processes are invisible to the students. Interviews with students later in the year may shed more light on explanations for the dissonance between school efforts at helping students make their subject choices, student perceptions of that assistance, and what help students would actually like.

This finding could be related to other data that show that the people who exert most influence on student subject choices are parents/caregivers and friends, rather than deans, subject teachers, or careers advisors. These school staff featured neither in reasons for students taking particular subjects, nor in reasons for students *not* taking particular subjects. Comparing school staff cited by students as influences for subject choice shows that the subject teacher is almost twice as likely to be an influence as the dean, and three times as likely to be an influence as the careers advisor.

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Figure 15

Student Perceptions of School Helpfulness with Subject Choice

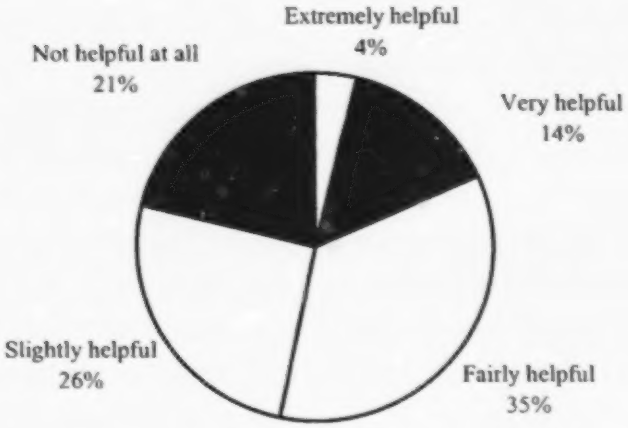


Figure 16

School Influence on Subject Choice

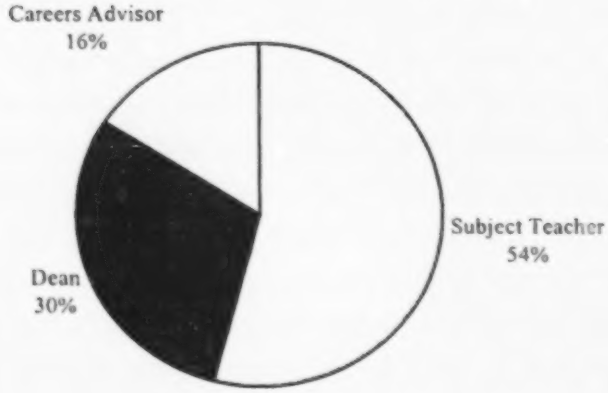
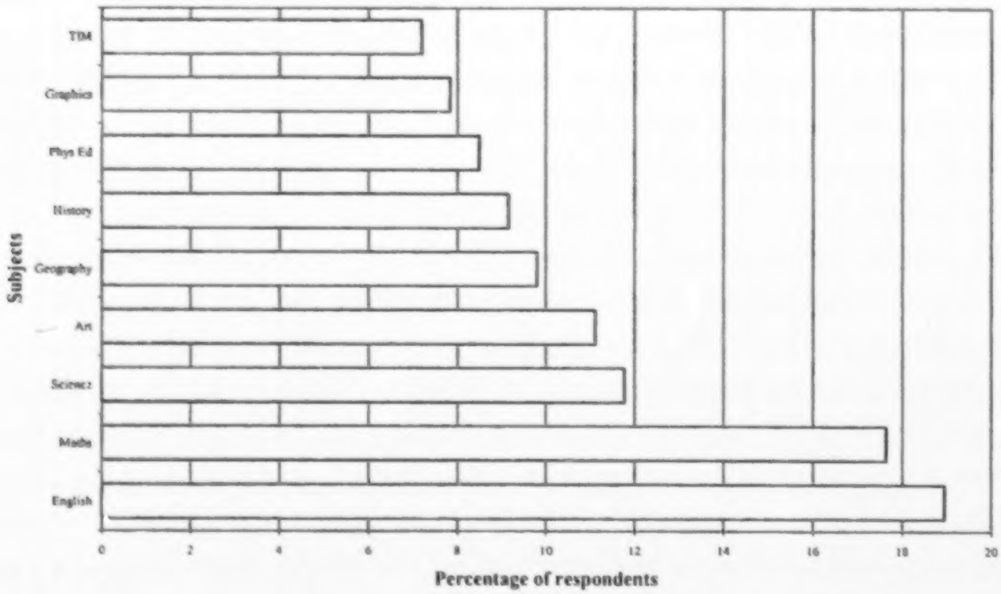


Figure 17 reports subjects where at least 5 percent of the 153 responding students said that they were influenced by their subject teachers as they made their choices. The core compulsory subjects of English, maths, and science are most likely to be influenced in this way. This is not surprising, given that all the schools offered different versions of these subjects according to the perceived or tested abilities of the students. Once again, however, art features as a subject where teachers have a relatively high influence on student subject choice.

Figure 17

Subject Choice Influenced by Subject Teacher's Suggestion



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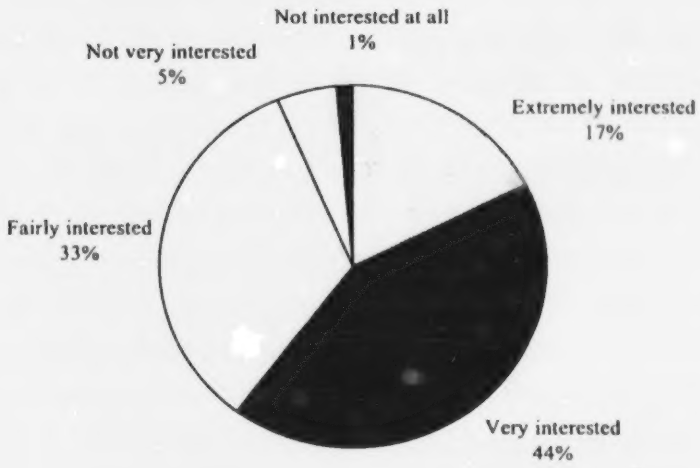
The Influence of Parents/Caregivers and Others in the Wider Community

Three-fifths of students perceive that their parents are either "very" or "extremely" interested in their subject choices, as shown in Figure 18. Only 6 percent feel that their parents have little or no interest.

Figure 18

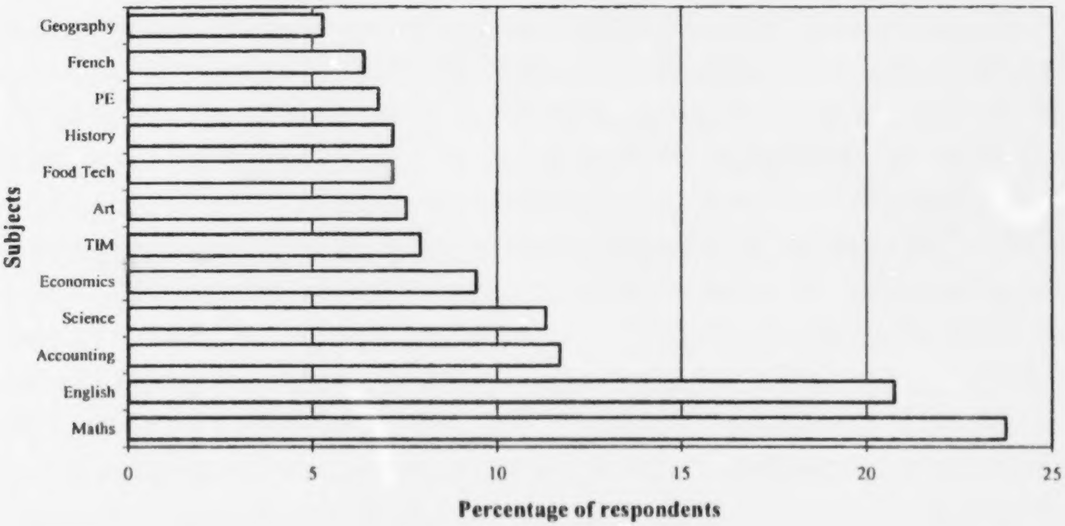
Students' Perceptions of their Caregivers' Interest in Subject Choices



Parental influence, as shown in Figure 19 (with 265 responding students), was most evident for two of the core compulsory subjects, English and maths, followed by a number of the more directly career-related subjects—accounting, science, economics, and TIM. Once again, art featured, possibly reflecting student career aspirations in this area, as discussed earlier in this section.

Figure 19

Subject Choice Influenced by Parents



A similar pattern of high parental influence in comparison with school staff influence has been found in the *Beyond School* project (Boyd et al., 2001), which tracked the intentions and actual outcomes of secondary transition for 321 students from five different secondary schools. In that study, the influence of family members and relatives stood out as the information source most used by the largest proportion of students. In at least one of the case study schools in the current *Learning Curves* project (Town School E), it seems likely that parents' uncertainty about the innovative subject choice structure that is already in place may be impacting on students' perceptions about the helpfulness of the school in guiding subject choices. Should the next stage of the project bear out this tentative hypothesis, school-parent communication on the matter of subject choice and subject structuring would warrant careful attention.

In this context, it is important to note that the *Beyond School* study found that those students who did use school sources of information and advice ranked these sources ahead of other sources as the most useful. The authors of that report suggested that students may have reported a high frequency of "home-based" information in the absence of easily accessible alternatives, even though in hindsight they found these other sources less useful than school sources. Where schools can see a way to utilise parent interest or skills by involving them directly in career resources and subject option evenings, challenges for working together to help students make choices they feel happy with may perhaps be overcome.

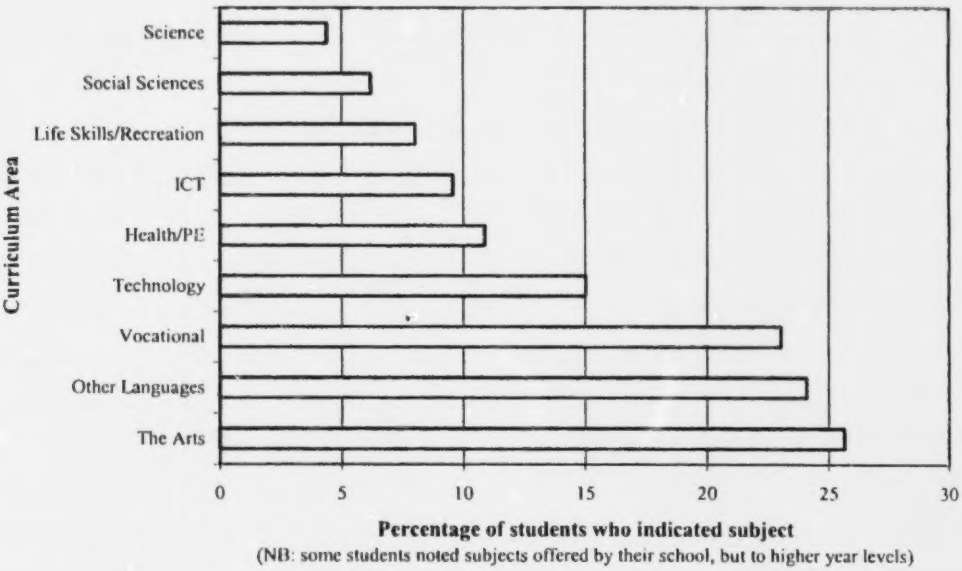
Where students expressed perceptions of any disapproval from parents and caregivers about their subject choices, they gave only very broad clues about why this was the case. The majority of parents and caregivers who did not approve of their child's subject choices did so out of what students perceived as their parents' and caregivers' "personal preference". According to the students' perceptions, few parents and caregivers wanted their child to have a more challenging course, and even fewer related subject choices to tertiary study options. This finding reinforces earlier comments about the importance of school careers advice, and highlights the evident challenge of finding ways for schools to exert more influence over subject choices, especially when/if the National Certificate/NCEA initiatives increase option complexity, as has already happened in Town School E.

Subject Choice Constraints

Students cited timetable clashes as the most common reason for *not* taking a particular subject. This reflects comments made by both principals and HODs about the difficulties they experience in creating timetables that do not limit student choices in general, or preclude certain combination of subject choices.

Figure 20

Curriculum Areas in which Students Indicated a Desire to See More Subject Options Made Available



The next most common reason for not taking a particular subject was that the subject was not offered at their school. In these cases, students were asked to suggest subjects they would like to see offered at their school. These have been grouped into broad curriculum areas, as shown in Figure 20 above. Arts subjects, especially photography and drama, were the most frequently mentioned, closely followed by a range of specific languages that held particular appeal for different students (including, in some cases, *because* the school did not offer it already!). In some cases desired subjects were available at the school, but not until a higher year level. For example, media studies was frequently mentioned by students in City School E, where it is a popular choice at Year 12. Again, this reflects a tension between keeping students' options open by mandating a core of compulsory subjects, and allowing them a wide element of subject choice.

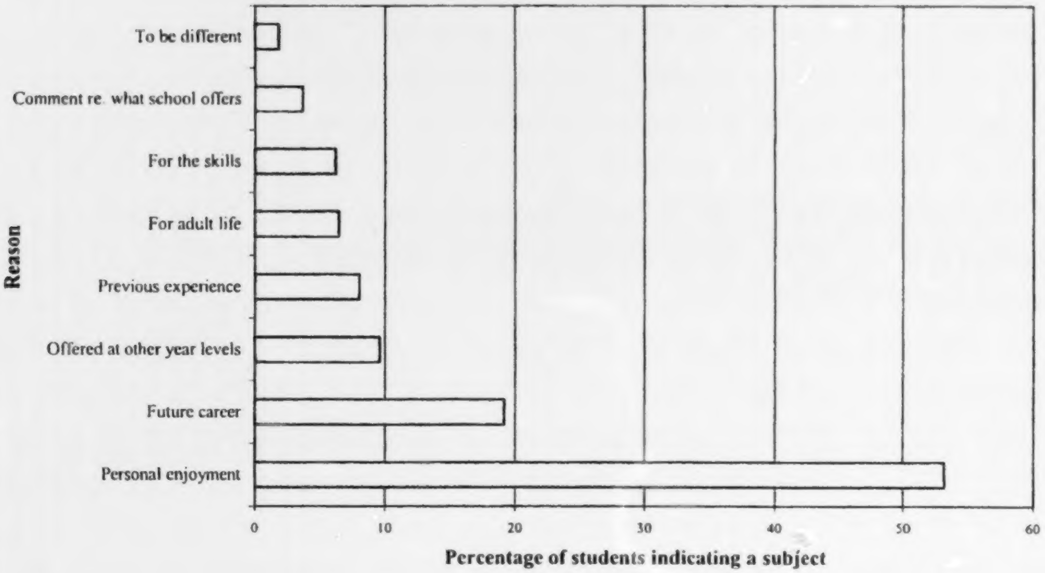
The third most common reason for not taking a particular subject was that the student felt they needed to "prioritise" among their subject options, meaning that some subjects could not be selected simply because of the limit on the number of subjects it was possible (and permissible) to study over the year.

Personal enjoyment is by far the most important reason that students cite for their interest in subjects not currently offered at their school, as it is for the choice of subjects that they are actually taking. Future career is cited as the next most important consideration, although it comes in at a distant second to enjoyment. Figure 21 reports all the reasons cited by students for wanting subjects other than those the school currently offers.

After personal enjoyment, the actual reasons given have been broadly grouped into similar areas—for example, any comments pertaining to wanting a choice simply because the school does not currently offer it have been grouped as "to be different". Comments such as "because I want to work with horses" have been grouped into career choice. Comments about activities such as "cooking for enjoyment" have been placed in "for adult life", and those such as "I have done this at another school" are collected in "previous experience".

Figure 21

Reason for the Indicated Interest in Other Subject/s Options



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Future Plans

The majority of student respondents indicated an expectation that they would be at school in the following year (2003, Year 12 for them), with a smaller number indicating this expectation for the year after that (2004, Year 13 for them).

Figure 22 reports types of expectations as a percentage of all the responses given for the 2003 year. A small number of students expect to be working (as an employee or as self-employed) in 2003, with an even smaller number expecting to be studying at a polytechnic or other tertiary level institution.

Figure 22

What Students Expect to be Doing in 2003

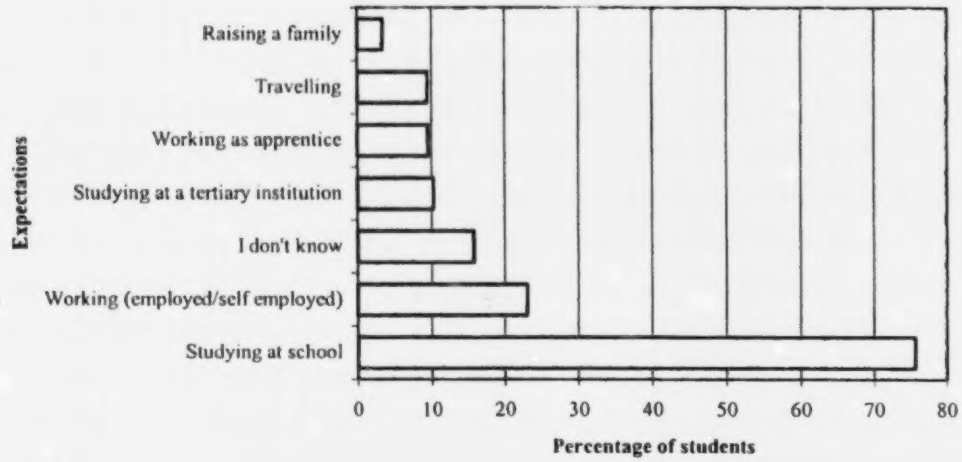

Figure 23 reports types of expectations as a percentage of all the responses given for the 2004 year. Interestingly, a sizeable proportion of the students expect to be studying at a tertiary institution or working in 2004, with a relatively low number expecting to remain at school for Year 13. A higher number of students expect to be travelling during what would be Year 13 than during Year 12. This is perhaps a reflection of the attachment to the notion of "O.E."[14] as a formative life event and/or social expectation in the life of a young New Zealander.

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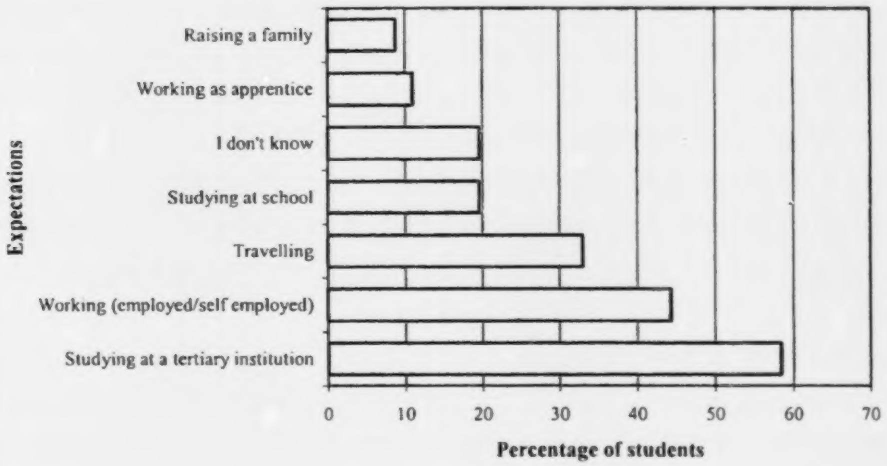
[14] O.E. stands for Overseas Experience. "O.E." is a colloquial term denoting the significance of travel as a formative experience for young people. It is closely related to notions of New Zealand as an outpost of the British Commonwealth, and it is most common for young people to begin their "O.E." in Britain or base themselves there.

Figure 23

What Students Expect to be Doing in 2004



This picture is consistent with other research on young people's transitions from school to work and/or further study. As the OECD (2000) reports in their thematic review of young people's transition from initial education to working life, the transition period between the end of school and the beginning of paid employment has tended to lengthen during the 1990s, creating a space of "milling and churning", partly due to bottlenecks through limited tertiary places (although this is not necessarily true of New Zealand) and partly due to young people's desires for time off, short-term work, or travel.

New Questions/Uncertain Patterns

Our findings raise a number of questions and suggest a number of possibilities for explanations. At this stage of the study, questions remain about why the efforts of schools, which generally do try very hard to provide good subject choice advice to students, are not being highly regarded by the students enrolled there. While we considered a number of possible explanations and patterns of responses from students in each school, few clear patterns of student responses were found.

Town Schools E and F had the highest proportion of students who perceived that their school had not been helpful, or only "slightly helpful", in assisting their subject choices. Town School E provides wide-ranging opportunities to students *in terms of qualifications*, but the range of subject choices is smaller than at any of the other schools, with one HOD describing the overall Year 11 curriculum as "severe". In this school, strong directives about within-subject alternatives for core subjects also act to sharply constrain individual choice. In all the schools, students wanted to improve in the core subjects because they saw these as important for their future study goals. We wonder if students in Town School E who have been directed into less demanding alternatives for

English, mathematics and/or science are anxious about the impact of this on their future study options. We will check for this possibility when we carry out the individual student interviews in the second half of 2002.

City School C appeared to offer few formal opportunities for advice about subject choice to last year's Year 10 students. In spite of this, City School C was ranked as just as helpful as Town School D, a school which provided significant and highly individualised advice to students about subject choice as well as career implications. We wondered if the high numbers of Pacific students at City School C might have made a "polite" response. We checked this by cross-tabulating all students' indications about the helpfulness of their school in choosing subjects against their ethnic backgrounds. No significant patterns across or within schools were yielded by this analysis.

We looked for evidence that some students are getting more or better advice than others from school sources (the dean, the careers advisor, and/or subject teachers), or that different students are responding differently to the help that they do get. Again, no ethnic or school-wide differences in response were identified.

SECTION SEVEN: ISSUES AND QUESTIONS

Rethinking the Academic/Vocational Divide

In the introduction to this report, we noted the existence of debates about the purpose of the credentials that are awarded for student learning in the senior secondary school. Should the attainment of credentials demonstrate the completion of schooling, describe the content of learning, signal preparation for the job market, or provide selection criteria for entry into further tertiary education (Dobric, 2000)? Underlying this debate is a deep history of dualistic thinking about "commonsense" distinctions between academic and vocational learning. In New Zealand, this divide has not been as overt as in some other nations, because the allocation of students to "technical" or "academic" secondary schools was not adopted here. However, the egalitarian ideal of a common core curriculum for all secondary schools became, in reality, a common academic curriculum, taught in traditional academic ways (McKenzie, Lee, and Lee, 1990). Within the assessed curriculum, dualistic thinking thus remained in force, via the covert undervaluing of the "not academic". The development of a National Qualifications Framework (NQF), and the subsequent development of the National Certificate in Education Achievement (NCEA), was deliberately designed to change this situation by challenging the academic/vocational divide (Peddie, 1998).

Educational leaders who share the NQF vision have responded to these initiatives by introducing a range of innovative courses that credential non-traditional learning, frequently including a "core" academic component along with a range of more diverse outcomes (Boyd, McDowell and Cooper, 2002). However, the underlying dualistic tensions appear to be far from resolved at this stage of the change process, and indeed may remain invisible to many protagonists in the debate. Parents and potential employers, for example, may resist what they see as a "dumbing down" of the traditional academic core, either when "cabbage" alternatives are suggested, or when equal status is given to credentials for less conventional subjects, and for a more diverse range of outcomes within *all* subjects. We suggest that the continuing existence of dualistic thinking around the academic/vocational divide underlies a whole suite of specific tensions that have emerged during the course of the research to date. These tensions are discussed below.

Wide Subject Choice or a Solid Foundation?

The NQF reforms, with their unit standards, and the more recently introduced NCEA achievement standards have undoubtedly already opened up new possibilities for subject choice at Year 11. In this new qualifications regime, teachers are torn between the desire to provide the wide choices that some students seem to seek, and the long-established professional wisdom that a "solid foundation" of basic subject knowledge and skills will ultimately serve students best. The latter conservative stance is reflected in the continuing "core" of compulsory subjects—some form of English and mathematics in all six schools, and some form of science in five of the six schools. For students who study five subjects at Year 11, this leaves a personal choice of just two of their subjects in five of the six schools, and three of their subjects in one of the schools.

The evidence suggests that parents and students also continue to see progress in these core subjects as critical to future success. Students clearly identified English and mathematics as the two key subjects they would need for future academic study. Unsurprisingly, in view of this, these were also identified as the two subjects in which they were most anxious to improve. Science, again predictably, came third for both measures. This awareness may be a two-edged sword when parents desire their children to keep their academic options open, in a situation where teachers perceive that the student may make better learning progress in an alternative course in that subject. Although some form of both mathematics and English was compulsory in all six schools, these were the two subject "choices" that students identified as most influenced by their parents.

At this stage of the research, three of the six case study schools have already actively pursued broader interpretations of the NQF vision. In all three cases, the reform initiatives began with unit standards, and the NCEA reform has simply broadened the available assessment options. However, interesting differences of approach are also apparent. Town School E credentials a wider range of outcomes within a subject structure that remains, at least superficially, "conventional". In this school, students have the smallest range of apparent choice at Year 11, but the structuring of course content within the compulsory subject options takes account of a much wider range of needs than are offered by the conventional "academic" versions of these subjects. While all six schools now offer options within core subjects, Town School E appears to have gone further in rethinking content and purposes for learning within these subjects. In the other schools, the options appear to offer "watered down" versions of the academic course that allow students to learn essentially the same things, but at a more appropriate pace and/or level. Thus, for Town School E, within-subject content and outcomes have become the primary site of reform.

On the other hand, both City School B and Town School D have opened up optional choices to credential a wider range of "non-academic" courses. Town School D has focused on the provision of more choice of "vocational" options. In City School B, the technology curriculum area (which in this school includes all computing courses) has provided the widest range of alternatives, and some courses such as "creative technology" appear to offer a fusion of outcomes from both the arts and technology curriculum areas.

Comments from some of the teachers and principals interviewed indicate that many parents may not yet fully comprehend the alternative versions of core compulsory subjects (e.g., "alternative English") that have been opened up by the NCEA. However, as outlined above, these "alternative" versions may in fact serve different educational ends. The structure and purposes envisaged for each new type of course need to be carefully explained and differentiated accordingly. There are communication challenges here for schools and for the wider education community.

Our interviewees also raised the issue of student difficulties in understanding the various pathways opening up. These difficulties were highlighted in research, cited in Lee and Lee (2000), into changes in teaching, learning, and assessment with the Scottish

National Certificate, which had modularised programmes of study and criterion-based assessment. The changes indirectly raised issues about the role of schooling in relation to how senior students understood their choices and pathways. The research found that teachers worried that modular programmes and continuous assessment would mean students would lack an overview of their study programme, although more than half the teachers, nearly all the employers, and half the students considered that the new system had helped learning. The research also found that teachers considered that the new system placed an inappropriate amount of responsibility on students for their own learning (wide subject choices), but also fostered a passive attitude toward learning (the passing of modules), rather than encouraging a deeper understanding of what was to be learned.

We will track the uptake of alternative versions of core compulsory subjects and their possible spread into other areas of the curriculum, as well as student understanding of these, over the next two years.

Streaming by Any Other Name?

While all six schools provided a clear *learning* rationale for the reorganisation of the core compulsory subjects into a range of options with varying mixes of unit and achievement standards, it does appear that this development has rapidly come to serve as a form of de facto streaming (into *ability* levels) in at least five schools. One principal openly worried that this was the case, while the longer-serving staff at this school were happy that they had at last been able to achieve a situation for which they had lobbied for some years.

Across the schools, different degrees of compulsion appear to exist in this "streaming" process. In Town School E, students are banded for most of their subjects and appear to have little personal choice in this process. In this school, a focus on the provision of a range of NQF qualifications has opened up vocational achievement and credentialling for "less academic" students, but appears also to have consolidated a divide in the minds of parents and students between those who will stay in the town to work, and those who are destined for further study at the tertiary level. While the academic/vocational divide remains "hidden" under the specifics of the reforms taking place, this potentially damaging interpretation appears unlikely to change. At the other extreme, students in City School B are relatively free to choose options within compulsory courses for themselves. In this context, it seems noteworthy that City School B also appears to have come closest to breaking down the academic/vocational divide. This situation may, however, change rapidly as other schools debate NCEA related course changes over the next few years, and as City School B accommodates what may be quite different needs for the students who currently make up its Year 9 cohort.

There are encouraging signs that, for the students themselves, the broadening of pathways for progress through the core learning in compulsory subjects may be beginning to break down "cabbage" perceptions. This effect appears, at least in our small sample and according to teacher self-reports, to be more marked in English than in mathematics. Again, this is a trend we will track with interest, particularly as the whole learning pathway envisaged for "less academic" students unfolds over the next 12 months.

The Reconceptualisation of "Vocational" Subjects

In two of New Zealand's seven curriculum areas, the implementation of the NCEA development appears to have given a new shape to academic/vocational tensions. For the technology teachers we interviewed, the "intellectualisation" of the subjects covered by this curriculum umbrella is of real concern. Underlying this, we suggest, is the assumption that the "status" of the subject can best be enhanced by the development of assessment instruments that focus on the academic—that is, that academic abilities are perceived to be of more value and status than "practical skills".

Again, this perception appears to be a two-edged sword. The assumptions that underlie it need to be brought into the open if the tensions are to be resolved. On the one hand, technology teachers are concerned that academic students are actively discouraged from taking these subjects by other staff, and by their peers and parents. The technology teachers identify considerable intellectual challenges in the subject, drawing on their own work experiences to challenge dualistic assumptions about the types of knowledge and abilities required for high achievement. They assert that many "academic" students would benefit and grow intellectually through studying a technology subject. On the other hand, these teachers also regret the narrowing of opportunities for "more practical" students to enjoy and achieve success in an area of the curriculum where they once might have expected to excel. There is also a sense that some of the skills previously integral to the "doing" of technology subjects, such as manual dexterity, tool proficiency, and a "feeling" for the materials, may be lost, as the emphasis in assessment tasks shifts from "craftsmanship" skills to conceptual (planning, research, and administrative) skills. Here the shift in opportunities for students already on (or directed on to) particular academic/vocational pathways may be particularly marked. In five of the six case study schools, the limited range of option choices for "less academic" students was seen as a concern that the school needed to address. We will watch for developments in this situation over the next two years.

During the development of the Level One achievement standards, it appears that one aspect of the academic/vocational tension within technology may have created a significant between-subject inequality. Technology teachers are very aware of the constraints placed on the types and combinations of courses that they can offer their students, because students can achieve the practical "design and create" credits in only one material medium. They contrast this with the equivalent situation in science, where students are able to gain the same "practical investigation" credits in two sub-disciplines. The argument for this appears to be that different disciplines bring different investigative procedures to science. However, the technology teachers point out that different media also pose different design questions and creative challenges within technology. It would seem advisable that this debate is brought into the open, so that it can be resolved.

Teachers of subjects within the arts curriculum area describe similar tensions. Again, they see that the more "intellectual" components of their courses could prove very stimulating for academic students. But these students are discouraged from taking these courses in favour of subjects that are more traditionally conceived of as "academic". The exception to this trend is the visual arts. Reasons for wider acceptance and uptake of this particular option will be further explored as the study unfolds. It may be, however, that this will prove to be the wrong question to ask. Students do want more choices in the arts curriculum area, and some schools are already discussing or planning new courses. We will monitor the academic profile of students who take up these options.

Finally, in this section we note that discouragement for academic students who wish also to take a more vocationally oriented option can be structural as well as attitudinal. Timetable structures delimit students' choices of their optional subjects. This was the most commonly cited cause of not being able to take a desired subject. (In Town School F, for example, one HOD noted that students could not take any combination of German, drama, and music, because each was only offered once, and they all fell on the same option line.) While all six schools make strenuous efforts to timetable options in a manner that accommodates the maximum possible range of student choices, tensions between meeting the needs of both more and less academic students may also limit the choices of students to take subjects that are not perceived as being "for them".

Credentials for Work or Further Study

The academic/vocational tension within the technology and arts curriculum areas captures one aspect of a wider tension between the view of assessment as a means of credentialling students for future work, and the view that it acts as a "gatekeeper" for further study. For the employer, assessment should presumably report on what students know and can do already—something that the wide range of unit and achievement standards is designed to cover. Furthermore, students in arts and technology subjects may well have developed a portfolio of products, or documented evidence of process/performance skills, that they can offer to prospective employers as an authentic demonstration of relevant achievement. City School B and Town Schools D and E all demonstrated quite different examples of the possible pathways that are now open to secondary schools who wish to meet identified vocational needs of large groups of their senior students. However, where assessment stands as the gatekeeper for entry into tertiary level courses, especially those perceived to have high status and limited entry, a quite different set of expectations may apply.

Comments made by some of the teachers interviewed suggest that members of the wider community may not yet understand the intention of underlying distinctions now being drawn between academic and vocational purposes for credentialling. These teachers worry that employers and tertiary providers alike will see some pathways for reaching NCEA credits as of more value than others. Distinctions could be made between pathways on grounds of subject/option choices made, speed of reaching learning goals, or even perhaps the perceived status/reputation of the credentialling institution (in this case, the school). Their concern is borne out by reaction to recently proposed reforms within the tertiary sector itself. Unitec's plans to offer a degree course for tradespeople has been slated as lacking in "academic rigour" and "cheapening university qualifications" by the universities on the one hand, but also by Industry Training Organisations (ITOs) for undermining vocational qualifications on the other (De Boni, 2002). Strachan (2001) documents the opposition of the New Zealand Business Roundtable to the NCEA reforms, citing amongst other grounds for their objections "the mixing of vocational and academic studies" and "the consistency of teacher judgments" (p. 246).

There is an irony here in that, as we noted in the introduction, many tertiary institutions have instituted "staircasing" options for students making the transition from secondary to tertiary education. Those students conscientiously screened out by the schools' gate-keeping role have been quite literally "let in the back door". This may well have been driven by competition for EFTS between tertiary institutions, and the staircasing options may well change as the government, Tertiary Education Commission (TEAC) and some universities explore the possibilities for exploiting strengths in particular faculties, developing centres of excellence, (controversially), allowing for greater direction from government to tertiary institutions over what is offered in courses, and giving consideration to raising entry standards. Whatever happens, this does seem to be an issue that secondary schools could productively debate, and where political consideration could be directed towards a review of funding policies.

These competing purposes were not raised directly by the participants in this initial stage of the research. However, we suggest that they can be detected in the anxiety and uncertainty about moderation, and about the inadequacy of the exemplars provided to date, which many of the HODs reported as an issue of pressing concern and as a cause of mounting time pressures. Where students are competing with one another for places in tertiary courses, issues of between-school, between-subject, even between-student reliability in the assessment judgments made become much more critical. Teachers want to do their best for their students. They do not want their moderation processes to let the students down, and they experience very real professional anxiety when they are unsure of the detailed requirements of the new systems, or of how best to support their staff through the changes. One principal has "conservatively estimated" that the NCEA will add an extra 92.5 hours per subject to each teacher's annual workload (Eadie, 2002). At least in the short term, it is an issue of real concern, especially where time for professional development and for reflection is limited.

However, teachers should not be expected to shoulder the weight of these subtly shifting expectations alone: the political and radical conundrum for teachers is that policymakers often avoid choosing between these different value positions about educational change and the reform groups that support them. To maintain support and avoid criticism, policymakers often blur the issues and try to appeal to both camps (Hargreaves, Earl, and Ryan, 1996; Firestone, Mayrowetz, and Fairman 1998), embracing common standards and individual variation, numerical comparability and descriptive sensibility, to both improve individual student learning and placate demands for system-wide accountability. Teachers are left to cope with the consequences—consequences that the most change-oriented teachers find exasperating. Resolving these contradictions should therefore be a political problem for policymakers and not merely a practical problem for teachers (Hargreaves, Earl, and Schmidt, 2002, p. 84). The responsibility for exploring and debating wider understandings of the multiple possible purposes for senior school assessment would appear to lie elsewhere as it is essentially a political and a community challenge.

Some Final Thoughts About Learning

We conclude this interim report with some observations and questions about student learning that have emerged during the course of the first six months of this study. Strachan (2002) provides a context for this discussion, with his summary of the main themes that have emerged from international debates about education, qualification, and assessment during the last two decades of the twentieth century. He links changing educational needs to:

- changes in the nature of work;
- technological change and the need for lifelong learning;
- international jockeying for competitive advantage through education;
- deeper understanding of learning;
- recognition of the impact of assessment [on learning];
- dissatisfaction with present assessment practices;
- ongoing attempts to improve the quality of assessment.

(Strachan, 2002, p. 261)

Changes in the nature of work are being addressed by the attempt to break the academic/vocational divide. However, our research has shown that tensions are created where these changes are not yet well understood. This raises the question of how aware students and their parents may or may not be of all these other "layers" of themes that underlie debates about reforms to assessment for credentialling. Two of the above themes directly mention *learning*, and a third does so by implication (as added in square brackets). What sense do students and their parents make of learning needs in relation to subject choice? At this early stage, our research has raised more questions than answers.

Outcomes of Learning

Learning in "academic" subjects has traditionally been assessed in formal public examinations whose structure has tended to emphasise "content" learning at the expense of other possibilities. In line with the privileged status of these subjects, cognitive outcomes have thus been valued as the most important indicator of successfully achieved outcomes of learning. By contrast, "vocational" learning is often assessed for a wide range of skills and attitudes, albeit within assessment regimes that have not attracted the status accorded to traditional examinations. A breakdown of the traditional "academic/vocational" divide could clear the way for rethinking the desired outcomes of learning in *all* subject areas, and consequently assumptions about the relative "status' of subjects. Researchers working in this area advocate for attention to be directed to outcomes of learning in three domains: cognitive, psychomotor, and affective (Karen Dobric, personal communication). In this view, subjects could be re-described, and their "worth" re-evaluated, in terms of the relative emphasis given to outcomes from each of these three domains. The recent assessment changes certainly make such reconfigurations possible, because learning in all three domains can potentially be assessed for qualifications credits. It remains to be seen if the changes associated with the NCEA implementation result such a reconfiguration of the emphasis within the more traditional curriculum subjects. This is an open question on which we will attempt to gather data during the second and third years of the research.

Enjoyment of Learning

In Section Six, we noted the apparent complexities of "personal enjoyment" as the most frequently cited reason for student subject choice. If students are to be encouraged to remain lifelong learners, it seems fundamental that their learning should be an enjoyable experience. However, responses to the student questionnaire suggest that "personal enjoyment" could potentially be linked with or attributed to any of the following:

- student self perceptions of academic or vocational ability;
- pathways conceptualised for further study or for future work;
- expectations of learning challenge (or conversely of relaxation and entertainment);
- parental encouragement and reinforcement of self-perceptions of ability (or not);
- influence of individual teachers;
- subject-specific content, contexts, learning activities;
- gender and/or cultural differences.

Our research showed a strong correlation between choice of PE as a subject and expectations that it will be "easy". However, other subjects chosen for personal enjoyment were not linked to ease of learning in the same way. Other research has linked enjoyment of learning to feelings of academic success that have been enabled by New Zealand's qualifications reforms (Boyd, McDowall, and Cooper, 2002) particularly where unit standards have been used for assessment of alternative learning pathways. Boyd et al. (2002) report students' learning success as the key that unlocks their potential and their increased awareness of tertiary study and career goals.

In a related project, Boyd, Chalmers, and Kumekawa (2001) found that personal interest is a strong motivator of career decisions. If students do have career goals in mind when they make their subject choices, are they able to identify and at least broadly articulate the manner in which specific types of subjects will assist them in meeting those goals? This is an important question in view of the variations within and between-subject courses that are now beginning to open up. Strachan (2002) suggests that in the past, a type of "magpie syndrome" has operated to support a belief in "the accumulation of qualifications for their own sake" (p. 260). During the individual student interviews to be carried out during the second half of 2002, we will attempt to explore the manner in which students link their learning and career goals to their subject choices.

The Issue of "Dumbing Down"

In the rhetoric surrounding the NCEA implementation, the phrase "dumbing down" has been frequently bandied about. While debate about external/internal assessment methods contributes to the controversy, doubtless it also relates, at least in part, to the academic/vocational tension explored above. Those who value the more intellectual pursuit of learning may see the potential to award credits for more "skill-based" learning as a sort of intellectual dilution. Yet the HODs across all subject areas were in broad general agreement that the implementation of standards-based assessment (whether as achievement or unit standards) is making assessment of some components of all courses more demanding. Students' perceptions of this issue, as it impacts on their own learning, will be sought during the telephone interviews in the next research phase.

We also note the potential flattening of the range of achievement that is being credentialled. It appears that in comparison with the ranked and norm-referenced public examinations of the past, more students will now reach unit standard achievement goals, or the "achieve" level of achievement standards. This trend is, and will further be, equated with "dumbing down" unless and until clearer distinctions are drawn between different purposes for credentialling, as discussed above. At the same time, the HODs note that it is becoming harder for students to achieve excellence, and that this requires more than the sheer hard work that previously helped conscientious students achieve high examination marks. Evidence for such "flattening" is not yet available. If it does occur, it may be that "able" students quickly find ways to accommodate the new assessment demands, so that a wider range of individual achievement soon opens up again—although it seems likely that patterns of who achieves with these changed goal posts may well change.

Strachan (2001) notes that some schools have long used their students' qualifications successes to "advertise their prowess", in order to maintain the educational advantages enjoyed by those in the school community. Certainly the types of schools who have objected most to the NCEA on philosophical grounds (citing mass "dumbing down") are also those with the most to lose in terms of a privileged and exclusive position in people's perceptions of what constitutes a "good school" with high achieving students. Changes to this status quo may have unanticipated effects on the co-operative and competitive relationships between schools. These are issues we will track over the next two years.

Multi-level Learning and New Complexities at Year 12

The impetus for changing profiles of individual student achievement could be boosted by the more detailed assessment information that will become available as the new qualifications are put into effect. In theory, every student could have their own tailor-made Year 12 course, which accommodates their successes (by moving them on to Level Two classes for those parts of courses where they have met the required standards) and also their failures (by making provision for further Level One learning where standards have not yet been reached).

HODs are very aware of the implications of knowing in more detail about the specifics of the achievement patterns of their individual students. We have heard the same basic questions from all six schools concerning how they will accommodate some approximation of the probably impractical ideal sketched in the paragraph above. None of the case study schools has yet come to any clear decision-making pathway, let alone any workable solutions. In part this is because there are so many uncertainties in the overall system. Will students pass or not pass the various individual standards in broadly similar patterns of achievement? Conversely, will individual patterns form an idiosyncratic mosaic, in which no broad grouping of "similar achievement profiles" can be made? These are unknowns until the results of this year's cohort of students are available for analysis. Even then, there is no guarantee that any clusters that may be identified will be sustained in the next year's cohort. Such are the uncertainties of uncharted waters and longitudinal research.

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APPENDIX ONE

Principal Interview Schedule:

Learning Curves: Meeting Student Needs in an Evolving Assessment Regime
New Zealand Council for Educational Research (NZCER)

Introduction to Research

Cover the following: focus of research not on the NCEA itself but on school with regard to meeting student needs in the wake of the introduction of the NCEA, interested in how school organisation of subject choices and information and support available to students, difficulties involved in meeting student needs, flexibility of timetabling and course options…

I have specific questions to ask but I would also like this to be a fairly open-ended interview with time for you to make the points you want to make about subject choice and student needs.

Mention the collection of data about subject choice – timetables, Year 11 student subject choice forms, school policy statements about subjects, written information available to students about subject choice…

Check on time available – require 45 minutes (if not possible, suggest making a follow-up time to complete)

---

1. **Background:**

   School name

   Principal's name:

   How many years in *this* school?

2. **How well do you think your school caters for subject choice for Year 11 students? Why do you think that is?** Ask principal for scale ranking and discuss as well.

extremely well	very well	fairly well	not very well	not well at all
1	2	3	4	5

BEST COPY AVAILABLE

3. **Thinking only of student subject choice, are you generally supportive or not supportive of the introduction of the NCEA?** Why/why not?

4. **Has the introduction of the NCEA prompted you to make any changes to timetabling of subjects or school policy about subjects or courses?** If yes, what are those changes and why? If no, why not?

5. **Do you think the NCEA will make a difference to the *types* of skills and abilities in students that will be assessed?** Why/why not? What new skills or abilities will be assessed now? Is your school able to do this?

6. **Do you think the NCEA will make a difference to the *levels* of skills and abilities?** Why/why not? What new levels of skills or abilities will be assessed now? Is your school able to do this?

7. **From your perspective, what are the biggest challenges for your school in meeting student needs now?**

8. **Do you think there other ways in which schools could identify and meet student needs?** (has there been any shift in types of student needs?)

9. **In your opinion, what are the constraints on student choice from the point of view of school organisation and resourcing?**

   Staff skills
   staff specialities
   particular resources

   timetabling issues
   Parent or community expectations

   ERO
   financial – limited by school fees

10. **Do you believe your school has any particular strengths in the area of subject choice and meeting student needs in that area?** What are these?

11. **Are there any particular challenges for your school in meeting the needs of particular students?** (thinking about particular groups or categories of student as well as individual students who don't fit particular categories)

12. **Are there any other comments you would like to make regarding student subject choice and the ability of your school to meet their needs in that area?**

Thank you very much for your time

APPENDIX TWO

HOD Teacher Interview Schedule:

Learning Curves: Meeting Student Needs in an Evolving Assessment Regime
New Zealand Council for Educational Research (NZCER)

Introduction to Research
Cover the following: focus of research not on the NCEA itself but on school with regard to meeting student needs in the wake of the introduction of the NCEA, interested in how school organisation of subject choices and information and support available to students, difficulties involved in meeting student needs, flexibility of timetabling and course options.

I have specific questions to ask but I would also like this to be a fairly open-ended interview with time for you to make the points you want to make about subject choice and student needs.

Mention the collection of data about subject choice – timetables, Year 11 student subject choice forms, school policy statements about subjects, written information available to students about subject choice…

Check on time available – require 45 minutes (if not possible, suggest making a follow-up time to complete)

---

1. **Background:**

    School name

    HOD's name:

    How many management units do you have?

    HOD for which subject:

    What subjects and levels are you teaching this year?

    How many years in *this* school?

2. **How well do you think this school caters for subject choice for Year 11 students?** Rank on a scale and discuss why this is.

extremely well	very well	reasonably well	not very well	not well at all
1	2	3	4	5

3. **What things would prevent a student from being allowed or being able to choose your subject at your school?**

Informal teacher judgment of student's lack of ability

Documented (through tests or assessment data) judgments about student's lack of ability

Self-perception of student about their lack of ability

Timetable clashes or timetable issues

4. **Do you think the students who do choose your subject are the ones who will benefit most from it? Why/why not?**

5. **In your opinion, will NCEA make a difference to subject structure (across subjects)?** If yes, how?

6. **Do you think the NCEA will make a difference to the *types* of skills and abilities in students that will be assessed?** Why/why not? What new skills or abilities will be assessed now? Is your school able to do this?

7. **Do you think the NCEA will make a difference to the *levels* of skills and abilities?** Why/why not? What new levels of skills or abilities will be assessed now? Is your school able to do this?

8. **From your perspective, what are the biggest challenges for your school in meeting student needs now?**

9. **Do you think there other ways in which schools could identify and meet student needs?** (has there been any shift in types of student needs?)

10. **Do you believe your school has any particular strengths in the area of subject choice and meeting student needs in that area?** What are these?

11. **Are there any other comments you would like to make regarding student subject choice and the ability of your school to meet their needs in that area?**

Thank you very much for your time

APPENDIX THREE

Student Questionnaire

Learning Curves: Meeting Student Needs in an Evolving Assessment Regime

New Zealand Council for Educational Research (NZCER)

We are interested in Year 11 students, your subject choices, and in the ways your school has assisted you to make those choices. This questionnaire is part of a three-year New Zealand Council for Educational Research (NZCER) research project on how schools meet student needs during the change to the National Certificate in Educational Achievement (NCEA).

We would like you to put your names on this questionnaire so that we may ask some of you if we can interview you later in the year. Even though your names will be on this questionnaire, anything you write here is **confidential**. Teachers will not see your answers; only the researchers will see them. We will be writing about what you and others say in this questionnaire in some reports but you will not be individually identified.

This questionnaire should take you about 15 to 20 minutes. Please answer by ticking the boxes provided, circling the correct answers, or writing in the spaces provided.

Section 1: Your subjects and courses this year

1. **Please list the subjects you are taking this year and CIRCLE the ones which are compulsory.**

2. **If any of the following factors were important in influencing you to take one or more particular subjects, please write the name of the subject next to the factor.**

Factors	Subjects
a) I have chosen the subjects I enjoy most	
b) I've done well (had good marks) in these subjects before	
c) These subjects are related to a course of further study (e.g. university, polytechnic) that I want to do	
d) These subjects fitted my timetable	
e) My friends were doing these subjects	
f) My parents/caregivers wanted me to do these subjects	
g) The subject teachers suggested I do these subjects	
h) The dean suggested I do these subjects	
i) The careers advisor suggested I take these subjects	
j) I have taken these subjects before	
k) These subjects are easy	
l) These subjects are related to a job I want to do	
m) Another adult (church leader, youth group leader, a relation, sports coach, etc) suggested I do these subjects	
n) I want to improve in these subjects	
o) I have another reason not listed here (please specify your reason)	

3. a) Did you want to take a subject and found that you couldn't take it?
If yes, please list those subjects. If no, go to Question 4.

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3. b) If you answered yes to question 3a (you wanted to take some subjects but couldn't), why couldn't you take them? (please select ONE main reason from the list below and write its letter beside the subjects you listed in question number 8)

a) There was a timetable clash
b) I didn't think I was good enough at it
c) The subject is not taught at our school
d) I was advised not to by the careers advisor
e) I was advised not to by the subject teacher
f) I was advised not to by friends
g) I was advised not to by my parents/caregivers
h) Other (please describe): ________________________

4a. If you could have any other subject options at this school, what would they be?

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4b. Why?

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Section 2: Your parents'/caregivers' views

5. **Please tell us what your parents/caregivers think of your subject choices. Were they:** (circle one on the scale provided)

Extremely interested	very interested	fairly interested	not very interested	not interested at all
1	2	3	4	5

6. **Did your parents/caregivers think you should be doing different subjects from the ones you are doing?** (circle one)

a) Yes b) No

7. **If you answered yes to question 6, please list the subjects they thought you should be doing instead and say why they thought this.**

SUBJECT	WHY

Section 3: Your future plans

8. What do you think you will be doing next year? (you may tick more than one)

	Tick here
a) Travelling	
b) Studying at a polytechnic or another place	
c) Working (employed or self-employed)	
d) Working as an apprentice	
e) Raising a family	
f) Studying at school	
g) I don't know	

9. What do you think you will be doing in five years time? (you may tick more than one)

	Tick here
a) Travelling	
b) Studying at a polytechnic, university or another place	
c) Working (employed or self-employed)	
d) Working as an apprentice	
e) Bringing up a family	
f) I don't know	

10. Is there a particular job that you would like to do (or a career you would like to follow)? If so, please tell us what it is.

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11. Please tell us if your school has been helpful to you in choosing your subjects (for example, your school may have had a careers evening, you could have met with a careers advisor, or your school might have given you some other help so you could choose your subjects). Please rank your answer on the scale provided.

Extremely helpful	very helpful	fairly helpful	slightly helpful	not helpful at all
1	2	3	4	5

12. Please make any other comments here that you would like to make about the subjects you have chosen, or the subjects available at your school for you to choose, or how your school has helped you to choose your subjects.

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Section 4: Information about yourself and your family

13. What is your ethnicity? (please circle the ONE or TWO you identify with most)

a) Mäori b) Päkehä/NZ European c) Pacific Nations

d) Asian e) Other (Please describe): ______________________

14. Are you female or male? (circle one)

a) Female b) Male

15. How old are you now? ______

16. Please tell us if your parents/caregivers are employed and what their job is (e.g. cleaner, computer programmer, factory worker, teacher, receptionist, truck driver, home-maker). A caregiver may be a parent or relative or someone else that you live with who looks after you. You may have more than one caregiver but please choose a maximum of two of them to answer this question. If a parent or caregiver is unemployed, please write that in your answer.

Is your first parent/caregiver (circle one): a) female or b) male

What is their job? ________________________

Is your second parent/caregiver (circle one): a) female or b) male

What is their job? ________________________

17. Would you be willing to be contacted for a short interview about your subject choices later this year? (circle one)

a) Yes b) No

If you answered YES, please give us some contact information:

First Name: ______________________

Last Name: ______________________

Which is your form class? ______________________

What is your address? ______________________

____

What is your telephone number? ( )______________

THANK YOU VERY MUCH FOR YOUR TIME AND FOR YOUR THOUGHTS ABOUT YOUR SUBJECT CHOICES AND FUTURE PLANS

Please put your completed questionnaire in the envelope provided at the front of the room.

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